Marriage and Cohabitation in western Germany and France

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Chapter 1

Introduction

Recent changes in the pattern of union formation in Europe

Over the last four decades, there have been remarkable changes in the pattern of union-formation and in the extent of having children outside marriage in many western European nations. Next to the spread of low fertility, there are hardly any other changes in family life which were as dramatic as the rapid rise in unmarried cohabitation[1] and non-marital births. Parallel, first marriage rates declined, the average age at marriage increased strongly and already existent marriages ended more often in divorces. The traditional sequence of a family formation pattern that has been characterized by early and wide-spread marriage and subsequent childbearing for about half a century, has become weaker or even disappeared.

Unmarried cohabitation is not a new phenomenon in Europe. However, the reasons of forming such a relationship differ between periods. In a historic view, cohabiting unions have always been existent in most European cultural areas. Predominantly those were formed by poor people who could not afford to marry for economic reasons, by people who were opposed to marriage for ideological reasons or by people who chose to cohabit after a marital breakdown or the death of the former partner (Kiernan, 2001). In western Germany for example, after World War II older people often lived in cohabiting unions after a divorce or the death of their partner because they did not want to lose their alimony or widow's pension by remarriage

[1] The terms "unmarried cohabitation", "cohabitation", "cohabiting unions", "consensual unions" and "non-marital partnerships" are used synonymously. These partnerships consist of heterosexual partners who share a common household.

(Nave-Herz, 2000). Since the 1970s, the group of people who cohabit is not restricted to particular subgroups anymore but is distributed among most social classes. Unmarried cohabitation has replaced marriage as the most frequent type of first union. While in some countries cohabitation mainly appears as a phase of transition which is restricted to young adulthood, in other regions of Europe also people in higher ages choose cohabitation as an alternative to marriage.

Some authors argue that this development together with decreasing fertility rates and a postponement of childbearing can be regarded as a demographic shift, labelled as *Second Demographic Transition* (Lesthaeghe, 1992; van de Kaa, 1987). Others stress the importance of the growing economic independence of women and the associated reduced gains to marriage (Becker, 1981). In his extensive literature review on the development of cohabiting unions, Carmichael (1995) also mentions the availability of reliable contraception, prolonged educational enrollment, late 1960s youth radicalism, increasing secularization, increasing economic uncertainty of the young and the spread of individualistic values as some of the major explanations for the rise in consensual unions (Carmichael, 1995, p.61).

To understand the reasons behind the increase in cohabiting unions and non-marital childbearing, cross-cultural comparisons can be very useful. There is still no clear convergence of family and union formation patterns in Europe (Kaufmann et al., 1997). Institutional factors, like the welfare regime of a society, specific policies and long-term cultural differences are primary sources for international differences in behavior. The overall framework in which an individual lives establishes a set of opportunities and constraints that shape the individual life course. This becomes finally visible as a regional pattern of union and family formation behavior. Therefore, it is reasonable to look at national family patterns that correlate with the social, cultural and institutional framework of a given society.

The following work compares union dynamics in western Germany and France. The aim is to study the pattern of first union formation in both countries by describing and evaluating the most important factors and settings that determine possible differences between both countries. One of the main objectives will be a comparison of the social and institutional framework in France and western Germany and the search for explanations how these external conditions might affect union formation.

Why is it interesting to compare France and western Germany?

Since the mid-1980s, a multitude of studies have been published which dealt with comparative welfare state research. Assuming that particular welfare regimes influence and structure life courses by shaping the educational and employment systems, many researchers compared the different systems in Europe and tried to detect systematic patterns. France and Germany have often been classified as conservative-corporatist welfare states (Esping-Andersen, 1990, 1999). Employment related and marriage related entitlements, the "male breadwinner model" as the predominant family model, the exclusion of non-employed, non-married women from social security and insufficient availability of public childcare are main characteristics of countries belonging to conservative welfare regimes.

However, by analyzing tax systems, social security systems, child care arrangements and labor market behavior of women, international comparative studies found considerable differences within Esping-Andersen's classification (Anttonen and Sipilä, 1996; Gornick et al., 1997; Langan and Ostner, 1991; Lessenich and Ostner, 1995, 1998; Lewis, 1994; Orloff, 1993; Sainsbury, 1999). They mainly criticized his focus on the male perspective while neglecting the different degree of labor market integration of women. The grouping of the conservative welfare-state regime in particular has been criticized, as combining all countries that are neither liberal nor social-democratic. Especially concerning gender and family dimensions, the group of conservative welfare states presents itself very heterogeneous. Comparisons between France and Germany[2] add more information to the

[2]Germany has a special history: during the four decades following the Second World War, Germany was separated into two countries: the Federal Republic of Germany (FRG - the western part of Germany) and the German Democratic Republic (GDR - the eastern part). East Germany had a state socialist system, a centrally planned economy, and socialist employment and family policies. West Germany, in contrast, had a multiparty parliament, a market economy, and a conservative–corporatist welfare state (Rosenfeld et al., 2004). Both countries experienced an entirely different political, cultural, and demographic development before Germany was reunified in 1990. Even 20 years after the transition process, demographic patterns, attitudes and some institutional structures differ strongly between both parts of Germany. Therefore, we exclude the eastern German part from our theoretical and empirical discussion and analyze only the so-called *Alten Bundesländer*.

different country-specific patterns that exist within this type of regime. Both countries differ immensely in terms of their family models, the extent of maternal labor force participation, the level of fertility, the share of non-marital births and the spread of cohabiting unions. German women live in consensual unions almost as often as do French women when they are young, but marriage is still much more dominant when they get older and particularly when children are involved. These so-called "child-centered marriages" (Matthias-Bleck, 2006; Nave-Herz, 1997) are explainable through a comprehensive system of historically grown family policies and institutional structures that hamper the economic independence of women. There are several institutional constraints and economic incentives in Germany that support the model of the married couple: co-insurance of married housewives by the health insurance of their husbands, higher tax reliefs for married couples in which one of the partners is not employed or works part-time (*Ehegattensplitting*), a parental leave scheme which until recently supported a longer exit from work after childbirth and weak father's rights in connection with illegitimate children before changes in legislation in 1998. Due to a low provision of child care facilities for children under six years of age and only half-day-schools for school age children, it is hard for western German women to combine their employment and their family life. Therefore they often quit or interrupt work for a few years to dedicate themselves to their family. The male breadwinner model with a non-working or part-time working mother is still very frequent. For western German women marriage does not only mean a personal commitment but it represents also an institution in which children can be raised and which provides financial coverage in case of separation. The interrelationship between marriage and parenthood seems to be very strong.

In France we find family policies and an institutional framework that also support marital unions, but set a high value on the support of families with children as well. The number of children reduces the tax burden in French households. We find an almost complete assimilation of rights and duties for children, independently of the legal situation of their parents. France is nowadays an international leader in the provision of full-day preschools, allowing French mothers to be engaged in gainful employment and therefore be not dependent on their husbands income anymore. The higher share of French women working fulltime, the greater possibilities of getting child

care, the better acceptance of non-marital relationships in law and the earlier equalization of marital and non-marital births are factors that enable women to be independent from their husbands earning. The strong increase in non-marital cohabitation in recent years, particularly in later life, as well as the high share of non-marital births indicate a changing paradigm - union status is not that important anymore, the interrelationship between marriage and childbearing seems to be much weaker than in western Germany. While cohabitation in western Germany has become a socially accepted, but only short-term prelude to marriage and is typically transformed into marriage when couples have a child (Blossfeld et al., 1999; Huinink, 1995), in France cohabitation has become an accepted alternative to marriage connected with a high rate of non-marital births (Leridon and Toulemon, 1995; Toulemon, 1997). The differences in demographic behavior and the apparent contrast in family policies provide a strong incentive to study France and western Germany in a comparative perspective.

Though there are several studies which deal with a comparison of family and union formation patterns in France and Germany, most of them come from a political science or sociological perspective (for example Becker, 2000; Ehmann, 1999; Lessenich and Ostner, 1995; Reuter, 2002a; Schultheis, 1999; Veil, 1997, 2003), others from an economic perspective (Baclet et al., 2005). Until now, a demographic dimension which discusses family formation processes has been mostly neglected in a detailed country–comparison, apart from some exceptions (Fagnani, 2002; Lauer and Weber, 2003; Onnen-Isemann, 2003). Particularly with regard to the rapid rise in unmarried cohabitations there are no extensive studies around. The present work closes this gap.

Research objectives

Most of the studies on marriage and cohabitation concentrate on women. Even though the underlying assumptions and theoretical implications are different, the fact that changes in union formation behavior are directly linked to the changing role of women is common to all theoretical approaches: the increase in female education, the growing labor-market participation of women and the consequential increasing options in life in the last decades.

Many authors argue that the changing life concepts for women reduced the

desirability to marry since gender-specific division of labor became less important and opportunity costs of childbearing increased drastically (Becker, 1981). As a consequence, marriage rates decreased and divorce rates increased. Others emphasize the fact that women's greater economic independence not necessarily leads to a decline in the proportion of women ever married but mainly to an increase in delayed marriage. They attribute delays in marriage and the rising age at marriage to the improved bargaining position of women. Greater economic independence allows women to search longer for an acceptable match and reduces the probability to remain in unhappy marriages (Oppenheimer, 1988). Well-educated women with substantial earning power can incorporate premarital cohabitation into search and bargaining processes because cohabitation provides good opportunities to observe men's earnings potential and willingness to share household and childrearing tasks before a more binding relationship such as marriage (Cherlin, 2000). Next to the increase in women's education, the prolongation of education is also discussed as one factor: It is not the rise in human capital investments of women that leads to delayed marriages but women's longer participation in the educational system (Blossfeld and Huinink, 1991; Blossfeld and Jaenichen, 1992).

Apart from the changing role of women over the last decades, men's situation, especially their education and economic position, should not be underestimated. Men's earning potential and their career opportunities play an important role for the timing of marriage of both men and women as well. Historically, women's marriage timing has primarily been a function of young men's economic characteristics and not the other way round (Oppenheimer, 1997). Additionally, in times of economic uncertainties it is often necessary to have more than one earner in the household or pool earnings (Oppenheimer, 1997). However, to include men into the analysis would go beyond the scope of this work, therefore men's union formation behavior is not discussed in detail but included to some extend via the women's partner's characteristics.

The major objective of this work is to analyze the two most discussed factors that are made responsible for changes in union formation behavior: the impact of women's education and the impact of childbearing on union formation behavior. Since a rise in education and female employment per

se does not necessarily lead to a growth in women's economic independence, we also consider and discuss country–specific structures which might hinder women and in particular mothers to translate their improved educational opportunities into an increase in their labor force attachment. Different welfare state regimes and their embedded family policies produce different patterns of labor market integration of both men and women and strengthen or weaken therewith women's dependency from the institution of marriage. They also influence legislation on marriage and cohabitation which again impacts the individual decision regarding union formation. Therefore, we are strongly interested in the effect of different family policies and institutional structures on union formation behavior. In this study, we exploit variation by country and over time to study the impact of family policies. Certain hypotheses on the effect of the contextual framework on marriage and cohabitation have therefore been developed. In western Germany, women have only limited access to employment and marriage presents the main institution of economic protection for women with children. Under these conditions we assume that unmarried parenthood will be avoided and a binding and legal confirmed institution like marriage will be preferred. In France, where female employment is encouraged and women are supposed to keep their living without being dependent on a family member that acts a the main breadwinner, an institution like "marriage" is not a necessary precondition anymore - not even when children are involved. It might more and more be replaced by cohabitation - at least in the beginning.

In the empirical part of this work, we investigate possible changes in the effects of certain covariates such as education, employment or childbearing over time by basing our analytical framework on the life course perspective (Giele and Elder, 1985; Kohli, 1985; Mayer and Schoepflin, 1989). We use the technique of event history analysis to analyze individuals, their positions and status changes over a particular length of time. A competing-risk framework is used to study direct marriage versus non-marital cohabitation. For cohabites, a model on the determinants of subsequent marriage formation is estimated. How does the occurrence of first cohabitation and/or first marriage is effected by other events such as childbearing, educational attainment or employment? Have these effects changed over the last decades? Are cohabiting unions a prelude or an alternative to marriage? In addition, we

analyze the extent to which the conception of a first child determines subsequent marriage rates in both countries. The effect of childbearing on union formation behavior can only be displayed by a certain extend since only actual behavior can be analyzed within our models. Whether couples marry because they *plan* to get children cannot be measured empirical. However, we are able to detect whether the interrelationship between union formation and pregnancy/birth is stronger in one country than in the other. By analyzing both events as interrelated processes we try to find out whether observed and unobserved individual characteristics simultaneously influence first birth and first marriage. Cross–sectional data cannot answer these questions. By using life course analysis, we can reconstruct the biographic embedding of marriage or cohabitation into the individual life course.

To be married or to live in a cohabiting union does not mean the same in France and western Germany. The following work is going to shed some lights on these differences by

1. closely analyzing the contextual impacts on union formation,
2. looking at the timing of union formation in the life course and
3. interpreting key factors, particularly the effect of female education and employment and the incidence of a pregnancy, and their influence on the decision to marry or not to marry.

We use two surveys with comparable longitudinal information collected trough retrospective accounts of life histories: the German *Familiensurvey* (Familysurvey) conducted in the year 2000 and the French *Etude de l'Histoire Familiale* (Study on Family History) conducted in 1999. The period of time covered in the empirical study stretches from the 1960s until the end of the 20th century.

Outline of the study

Chapter 2 introduces general demographic indicators and an overview on marriage and childbearing pattern in western Germany and France. **Chapter 3** presents literature on the determinants of marriage and cohabitation and discusses possible explanations for recent changes in union formation

behavior. **Chapter 4** gives a detailed overview on social and structural conditions in the two countries which will help to understand why people might prefer a particular type of union or not. On the basis of the theoretical and institutional background, main research hypotheses will be presented (**Chapter 5**) that lead to the empirical part of this work. This part starts in **Chapter 6** which introduces methods and data sets and discusses sample selection, definitions of events as well as selection of covariates and previous research. This is followed by the empirical part of this work in **Chapter 7**. Main descriptive results are presented in **Section 7.2** in which the transitions into different kinds of unions by age and cohort are analyzed. Cumulated incidence curves and the multivariate analyzes of entry into first union are presented in **Section 7.3** for western Germany and **Section 7.4** for France. In **Section 7.5** we summarize the empirical results. **Chapter 8** combines theoretical considerations with our results and concludes with an outlook to future research challenges.

Chapter 2

Demographic developments

Germany and France are neighboring countries situated in Middle/West Europe. Both countries share some common features in the process of adolescence and within the family formation process. The entry into sexual life starts within the same age in France and Germany, men and women are between 17 and 18 years old in both countries (Bozon, 2003). Also, the use of contraception is widely spread: three-quarter of all women use contraceptives (United Nations, 2003). People in both countries need longer to become economical independent from their parental home than did the generations before them. They remain longer in education: the median age at leaving school in France and Germany increased over cohorts. In France, the age at leaving school increased from 14 years for people born before 1930 to 20 years for those born around the year 1970 (Robert-Bobée and Mazuy, 2003). Also in Germany, the median age at leaving school and starting to work has increased (Konietzka and Huinink, 2003).

Table 2.1 displays a summary of some of the most important demographic indicators concerning marriage and family and its changes during the last decades.

Table 2.1: Development of selected demographic indicators in western Germany and France

	W-Germany		France	
	1960	2008	1960	2008
total first marriage rate (per 100 women)	106	62[1]	103	51
total divorce rate (per 100 marriages)[2]	15[3]	40	10	45
total fertility rate (per woman)	2.37	1.37	2.73	2.00
mean age at female first marriage (in years)	23.7	29.9	23.0	29.7
mean age at birth of first child (in years)	24.9	30	24.1	28.1[4]
proportion of non–marital births (in %)	6.3	25.8	6.1	51.6
proportion of ever–married women by age 50 (in %)[5]	92	74	94	72

[1] 2000, [2] marriages <=25 years, [3] 1970, [4] 2006, [5] birth cohorts 1930 and 1965

Sources: Desplanques (2008); Pla and Beaumel (2010); Prioux and Mazuy (2009); Statistisches Bundesamt (2010), some data for western Germany has been provided by personal contact from the Statistical Office of Germany

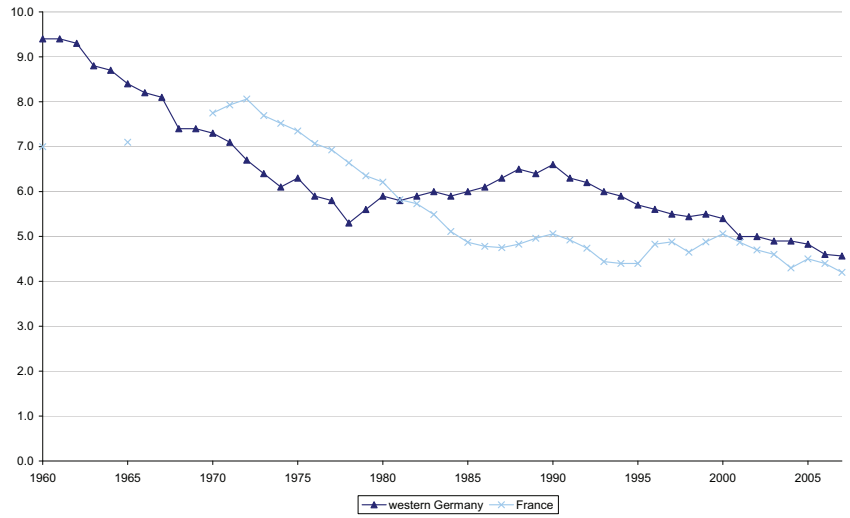
Parallel to the increase in ages at leaving education and starting working life, the mean age at becoming pregnant[3] or getting married for the first time has risen remarkably in both countries. In both countries, women who married in the year 2008 are on average around six years older than 48 years ago. Also the mean age at first birth increased up to four or five years. Total first marriage rates almost halved in both countries. Unions also tend to be shorter–lived, as separation and divorce become more common. In both countries, divorce rates increased. As marriages became more seldom, the proportion of unions that began as non-marital partnerships and the number of births outside of marriage increased, particularly in the last twenty years. Starting from the same level in 1960, nowadays France exhibits a much greater proportion of non–marital births than western Germany: 51.6 % of all children born in the year 2008 have been born to non–married parents in France compared to 25.8% in western Germany. The proportion of women who have ever been married by age 50 decreased as well, however, still almost two-thirds of all women born in 1965 married at least once in their life in

[3] Since numbers for western Germany have only been available for births of children born within marriage, the mean age at birth of first child is overestimated. Estimations independent of marital status made by Kreyenfeld (2002a) for earlier years showed a mean age at first birth of 27.1 for the year 1995 instead of the official number of 28.1.

both countries.

We display two standardized indicators in more detail to show the decrease and postponement of marriage over time in both countries. In figure 2.1 we see crude marriage rates by age and calendar year.

Figure 2.1: Crude marriage rate, 1960-2000



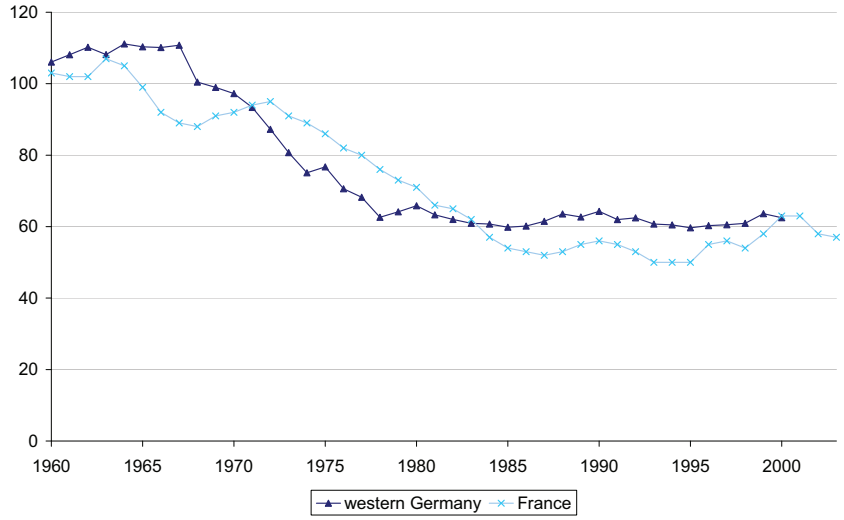
Source: Council of Europe (2001)

Crude marriage rates express the number of marriages formed each year as a ratio to 1000 people, expressed with respect to population size. This measure naturally disregards families based on informal partnerships and other types of legal unions as well as married but separated spouses. Crude marriage rates are also strongly affected by the demographics of the population in question. Both countries display a strong decrease in marriage rates after the 1960s. Until the end of the 1970s marriage was more pronounced in France than in western Germany. However, this changed in the early 1980s when French marriage rates dropped well below the level of western Germany. Only in recent times both countries seem to converge.

Total female first marriage rates are less affected than crude marriage rates by the overall demographics of the population. The total female first marriage rate (TFFMR) is estimated as the sum of age-specific marriage rates of single women aged 15-49. It shows how many percentage of single women would marry if current marriage conditions remained. In times of sinking marriage ages and catch-up-marriages (as was the case in the 1950s),

this synthetic index can reach values above 100. In France and western Germany, we observe an almost steady decline in female first marriages since the end of the 1960s (figure 2.2).

Figure 2.2: Total female first marriage rate, 1960-2000

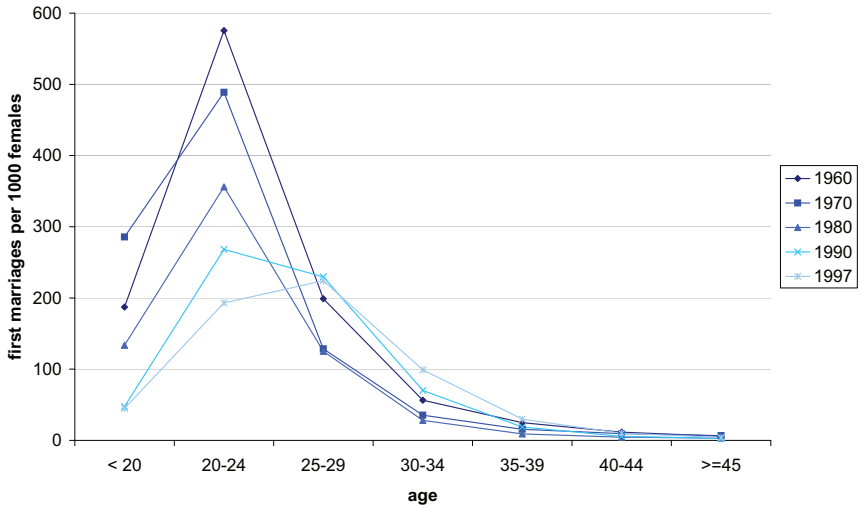


Source: Council of Europe (2001)

Before that time, marriage was universal – almost every woman got married during the 1950s and 1960s. After the sharp decline during the 1970s, in western Germany the TFFMR levelled off during the 1980s and remained since then on a level of 60% until the year 2000. In France, the decline in female first marriages started earlier than in western Germany but exhibited higher numbers during the 1970s. After the beginning of the 1980s the TFFMR declined and dropped below the level in western Germany. Starting in 1995 we can observe an upswing in the TFFMR. This increase has been identified as a timing effect caused by a change in tax law which encouraged couples with children to legalize their union and thereby pay less tax. As a consequence, marriage rates of cohabiting parents increased strongly between 1996 and 1997 (INSEE, 2002, p.13). It was, however, only a short–term increase with another peak in 2000 caused by the "millennium–effect". In last years, the TFFMR has been decreasing again: Since the 2000 peak of 60%, the index has been gradually falling to 51% in the year 2007 (Prioux, 2008). However, also the TFFMR must be interpreted carefully because it gets strongly influenced by changes in the age at marriage or by period–

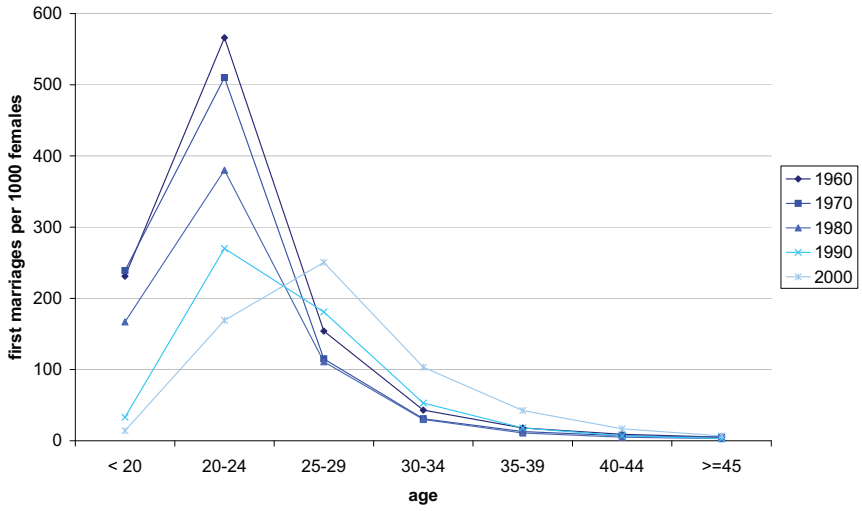
specific influences on the propensity to marry (just as it was the case for France in 1996). It yields estimates that are too low if calculated at a time when women are postponing marriage until older ages or are too high in times of catch–up effects. The TFFRM displays a current image of the propensity to marry in a society and can only give accurate results in times when age–specific marriage behavior does not change in the long run. To get more information on the degree of the postponement of marriage over time, we take a look at female age–specific first marriage rates (figure 2.3 and figure 2.4). It is remarkable how both countries show almost similar patterns regarding the magnitude in the decrease in first marriage rates and the ongoing postponement of marriages. The peak for first marriage rates shifted from ages 20–24 during the years 1960 until 1990 to a peak in ages 25–29 for recent years. At the same time they reduced by more than half.

Figure 2.3: Sum, by five-year age-group, of female first marriage rates (age in completed years) in western Germany, 1960-1997



Source: Council of Europe (2001)

Figure 2.4: Sum, by five-year age-group, of female first marriage rates (age in completed years) in France, 1960-2000



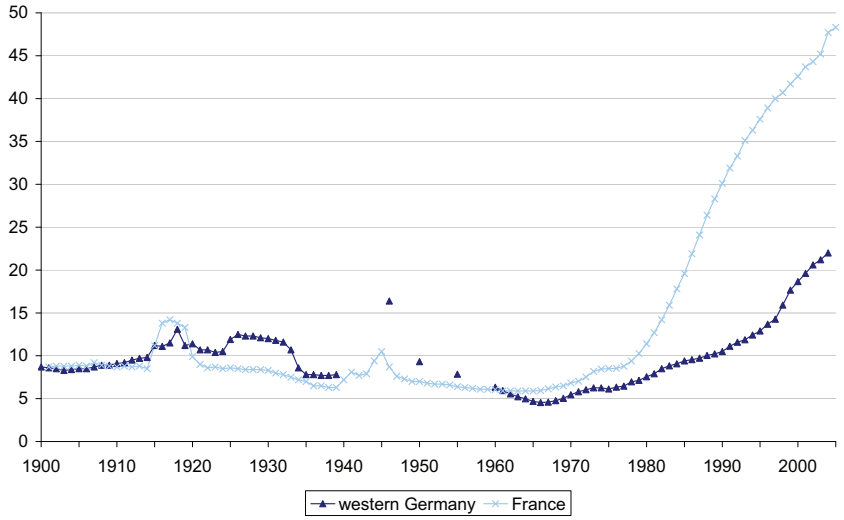
Source: Council of Europe (2005)

In addition to differences in marriage patterns in western Germany and France, there are major differences between the two countries concerning the magnitude of fertility. Since the end of the Second World War, France has always had higher birth rates than Germany. In the year 2001 a German woman had on average 1.35 children, whereas a French woman gave birth to averaged 1.9 children which is not very far from the replacement level of 2.1 children per woman and the second highest fertility in the EU (Council of Europe, 2003). Even greater differences can be seen when we look at the degree of ultimate childlessness. We find a very high share of childlessness in Germany: 25 % of all women born in 1960 will presumably stay childless (Kreyenfeld, 2002a). The more educated the women are, the more likely it is that they will forego childbearing (Kreyenfeld, 2004). Childlessness is less pronounced in France - only around 10 % of women born between 1950 and 1960 stayed childless (Toulemon, 2001). Even though we observe an increasing delay in starting a family in both countries - the median age at first birth has been increasing in France and Germany - but only in Germany this postponement process also passes into definite childlessness. Cohort fertility is even higher than the period indicator of fertility in France; the 1965 birth cohort has on average 1.99 children, which comes close to the replacement level of 2.1 children per woman (Council of Europe, 2001). This and the

fact that nine out of ten French women become mothers (Toulemon, 2001) provides France with the second highest fertility in the European Union. In the 1970s, the western German Total Fertility Rate levelled off at around 1.4. The Completed Fertility Rate is also extremely low: The average number of children for women who were born in 1965 is estimated to be 1.47 per woman (Council of Europe, 2001).

There are not only differences concerning the overall level of fertility but also regarding the type of union children are born into. Both countries exhibited a similar proportion of non–marital births in the beginning of the twentieth century of around 10 % (figure 2.5).

Figure 2.5: Proportion of non-marital births, selected years



Sources: for Germany 1871-1939: Statistisches Reichsamt (1923, 1942), 1946,1950,1955: König (2002), 1960–2001: Council of Europe (2003), 2002–2004: Statistisches Bundesamt (2006); for France 1901-1999: Daguet (2002), 2000–2001: Council of Europe (2003), 2002-2005: INSEE (2006)

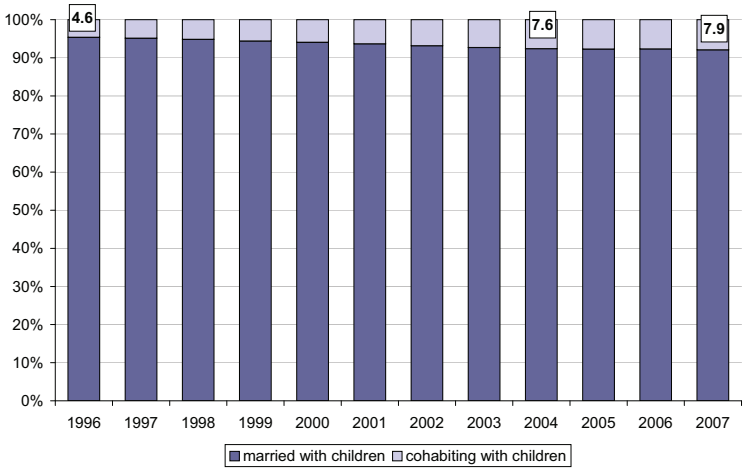
The First and the Second World War led to an increase in non–marital childbearing but after 1945 non–marital childbearing became very rare. It started to increase again during the 1970s and raised strongly in the early 1980s in France and more moderate at the same time in western Germany. Even though the share of children that were born non–marital has increased in western Germany in the last 20 years, it is still quite small in comparison to France. There, almost 48 % of all children have been born to unmarried

parents in the year 2004. For first-born children this proportion is even higher: in France, 59 % of those were born outside of marriage in the year 2005 (INSEE, 2006). These numbers are very close to those in Scandinavian countries, which where the very first countries in Europe that experienced a remarkable increase in non-marital childbearing. Only a small proportion of these children are out of partnership births, most of them are born within cohabiting unions (Kiernan, 2001; Le Goff, 2002; Munoz-Perez and Prioux, 2000).

Figure 2.6 and figure 2.7 on page 19 display the development of the proportion of cohabiting and married couples with children as a proportion of all couple–families with children[4] over time. In western Germany, most of all two–parent–families with children still consist of married couples. There are only minor increases in the share of cohabiting couples with children – from 4.6 % in the year 1996 to 7.9 % in 2007. In contrast, 23 % of all families with children consisted of cohabiting parents in France in 2004. This number is higher for couples with only one child (almost 30 per cent) and lower for couples with two and more children (almost 20 per cent) (INSEE, 2008a). The share of married couples with children is strongly decreasing in the last 15 years in France. These numbers, however, cannot provide information on newborn first or second children and their distribution over marital status since in both countries the number of children is only registered within existing marriages.

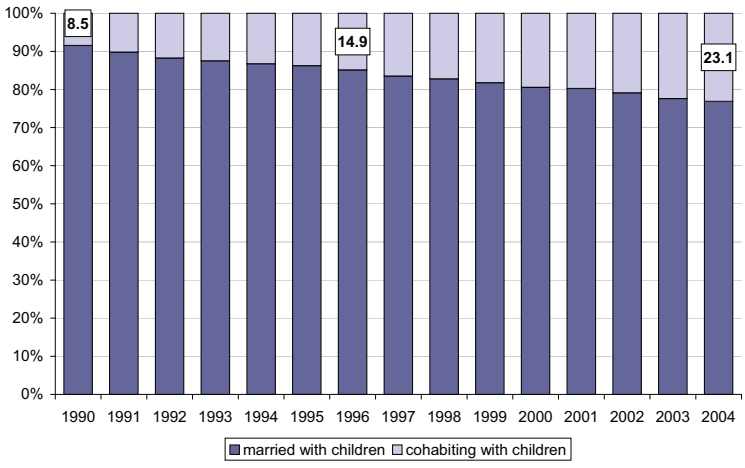
[4]We display the totality of heterosexual married and cohabiting couples. Also couples who live in separation but are still married belong to the group of married couples. People living in non–marital cohabitation might not only be never–married but also be divorced and cohabiting.

Figure 2.6: Distribution of cohabiting and married couples with children in western Germany, selected years



Source: Data has been provided by personal contact from the Statistical Office of Germany

Figure 2.7: Distribution of cohabiting and married couples with children in France, selected years



Source: INSEE (2008b)

We can conclude that both countries experienced major shifts in the pattern of union and family formation in the last 60 years. Marriage rates decreased, marriage became postponed, divorce became more common. Still the majority married once in their life, at least this is true for women born in 1965 and before. The degree of non–marital childbearing differs immensely between the two countries. While marriage and the birth of a child are still strongly interrelated in western Germany, in France children are as often born to non–married as to married parents.

What is the reason for falling marriage rates? Why do people marry at all and why do they postpone or even forego marriage in recent times? What are the reasons for different patterns in union formation behavior in western Germany and France, particularly concerning the impact of children on marriage and cohabitation? The next two chapters focus on these questions. Chapter three discusses the theoretical framework of union formation patterns and chapter four embeds these theoretical implications within the institutional and political structures in both countries.

Chapter 3

Theoretical framework

3.1 Introduction

Declining marriage rates and increases in cohabiting unions belong to a complex of changing family formation patterns in the last decades. Since the 1970s we can observe a recede of the monopoly position of marriage as the most popular form of partnership in most industrialized nations. The high acceptance of marriage and family has declined and strong Christian-traditional values and norms in which marriage is highlighted as essential for living together with someone have become less important (Lauterbach, 1999, p.275).

Reasons for the recent changes are widely discussed. One can broadly classify four directions of argumentation: 1. Authors who attribute declining marriage rates to the growth in women's economic independence, 2. Authors who try to explain the new diversity of family forms with modernization and growing individualization. They see a universal change, coming sooner or later to all developed countries., 3. Scholars who emphasize the role of long-term cultural continuities that have been shaping the diversity of Western European societies, especially when explaining differences between Southern and North-Western Europe., and 4. Authors who emphasize the role of institutional factors in explaining different social and demographic outcomes. They do not expect convergence of family and union formation patterns as long as the social and economic institutions in each country remain different.

The first theoretical approaches considered deal with the rational-choice

perspective on union formation. Starting with the classical economic theory of marriage by Gary S. Becker in section 3.2, this part also contains critical arguments against those approaches. One of the main criticisms concerns the role of increasing economic independence of women. In this regard, major points will be the importance of men's economic position in marriage formation, the timing of marriage and the improvement of women's bargaining positions in the context of rising female education. Section 3.3 discusses approaches that deal with growing individualization and secularization in society and its influence on union formation behavior. Whether long-term cultural differences might explain different behavior is discussed in section 3.4. The following part, section 3.5 includes the institutional perspective which locates the changes in union formation and the differences across countries in changing institutional settings, historical grown structures and changing laws. The last part of this chapter concludes with a resume that arises out of the theoretical discussion.

3.2 The economic independence theory

> "Although most people marry for love, they don't marry *only* for love. Rather, most people also make rational calculations about the costs and benefits of marrying the individuals they love." (Cherlin, 2000, p. 126)

Theories concerning the process of entry into marriage have long been dominated by a model that stresses the importance of differentiated sex roles for a stable marriage system. Already during the end of the 19th century, Emile Durkheim mentioned the sexual division of labor as the source of conjugal solidarity: Because men and women are different, husband and wife can exchange resources to their mutual benefit. Child–bearing and child–rearing increase role specialization and the interdependence between spouses, in Durkheim's term *marital solidarity* (Durkheim, 1984). In the 1940s, sociologist Talcott Parsons (1949) argued that sex–role segregation – women as housewives and mothers, men as main breadwinners – are a functional necessity for marital stability and for the society itself. Due to segregation of role potentially disruptive competition between the spouses can thus supposedly be prevented (Parsons, 1959, p. 262ff.).

This theme has been continued in economics, though from a different perspective. From the early 1960s onwards, starting with studies by Becker (1960) and Mincer (1962), the so called New Home Economics discussed family and fertility behavior under microeconomic perspectives. Main issues were the structure of production within private households and decisions within the family. Classical micro-economic rational choice theory, as represented by the New Home Economics, postulates that actors have stable and constant preferences and are rational in their decision–making: they allocate their limited resources (mainly income and time) in ways that maximize total satisfaction. The more beneficial actions are, the more often they are performed. The more cost-intensive actions are, the more often they are avoided. The household can be seen as a little factory in which the members produce "domestic output" by combining their time and purchases of goods and services from the market (Ermisch, 1996). The objective is the maximization of household production. Regarding marriage, economic theory assumes that single men and women are trading partners who decide to marry if the gain of marriage is higher for both of them than the gain of remaining single.

The economic theory of the family, also known as the gains-to-trade or specialization model, established by Gary S. Becker in his article "A Theory of Marriage: Part I" (Becker, 1973) and later on in his influential book "A Treatise on the Family" (Becker, 1981, 1993), is the pioneering work of this approach. He assumes that men and women marry if both of them increase their utility with marriage. Utility depends on commodities produced by each household, such as quality of meals, quality and quantity of children, prestige, recreation, companionship, love and health status (Becker, 1973, p. 6). Maximized utility can be achieved by traditional sex-specific division of labor within the household. The two most important theorems in this context are (Becker, 1993, p. 33f): 1) All household members with a greater comparative advantage in the market would specialize completely in market work, all members with a greater comparative advantage in the household would specialize completely there, and 2) Those members of a household with a greater comparative advantage in market work would invest only in market capital, and members specializing in the household sector would invest only in household capital.

Children are seen as union-specific capital of both parents and an invest-

ment based on long-term prospective of the union. They require a certain degree of division of labor and role specification for the couple, which is economically beneficial and one of the main reasons to form a common household. In this approach, women are mainly responsible for the caring and upbringing of children, whereas men traditionally spent most of their time in market activities. Consequently, both men and women gain from a binding long-term relationship such as marriage since each of the partners can offer something to the household the other one does not posses.

> "The biological differences between men and women in the production and care of children, and the specialized investment in market and household skills that reinforce the biological differences, explain why the institution of marriage has been important in all societies." (Becker, 1993, p.44)

Even without children, both partners can benefit from a division of labor since women usually tend to have lower incomes than their male partners do.

However, with growing labor-market orientation of women over the last decades, female employment opportunities and wages have risen. Women became less specialized and more economically independent. Moreover, opportunity costs of pure household work and child rearing increased, i.e. through foregone income and human capital accumulation which a woman would lose by staying at home and upbringing of children instead of going to work. One of the major consequences of the rising costs of children is the long-term fertility decline in almost all industrial societies. Becker assumes that highly educated women have higher opportunity costs which arise from missed out gains from own employment. The waiving of income in favor of children weights heavier for them than for lower qualified women and therefore they more often abstain from getting children. Female education and number of children are assumed to be negatively correlated. Related with that, the desirability of marriage reduced, since children are viewed as the major source of marriage-specific capital. The growth in female economic independence led to a decline in the gain from marriage because the gender division of labor within households became less advantageous and the mutual dependency between marital partners has been reduced:

> "The gain from marriage is reduced ... by a rise in the earnings and labor force participation of women and by a fall in fertility because a sexual division of labor becomes less advantageous." (Becker, 1981, p. 353)

As a consequence of rising labor force participation rates of women and connected with that falling fertility, the proportion of unmarried women increased and marriages became unstable. Without children, the advantages of a sexual division of labor within the household have become less beneficial. Additionally, the "security function" of marriage and women's dependency on an income provider (the male breadwinner model) has become less relevant.

Even if Beckers theory of gain-to-marriage was originally developed to explain marriage respectively non–marriage, it might also be relevant for consensual unions because marital and non-marital unions share more similarities than marriage and the single state. There are two competing hypotheses about the effect of women's economic independence on cohabitation. On the one hand, the economic perspective suggest that the effect of an increase in womens economic independence on nonmarital unions is the same as its effect on marital unions. The stability of the union will be decreasing because economic independence undermines the sexual division of labor and reduces mutual dependency between the partners (Wu, 2000). On the other hand, one could argue that as marriage becomes less attractive to women, cohabitation becomes more attractive. Cohabitation offers the benefits of both marriage and being single. Even if a couple does not believe in the utility of the institution of marriage, they may still attempt to maximize their comparative advantage through cohabitation. A shared household without a marriage contract combines economic advantages – pooling resources and reducing costs of living – with the ease of dissolution since cohabitation implies fewer social, financial, and legal obligations than does a marital union. In this sense, cohabitations make good sense because they capitalize on the benefits of a shared household without the economic risks associated with marriage. This argument however, is only valid if cohabitation is viewed as a prelude to marriage or even rather an alternative to being single. That non–marital cohabitation can also be a long–term alternative to marriage is not considered within the economic approach.What is also not discussed within the framework of the economic theory of marriage is the importance of the

institutional framework in each country. Family policies, the tax and social security law as well as the legal system can give advantages or disadvantages to particular kinds of union – either for marriage or for cohabitation or even for being single[5].

Under the assumption of role specialization, men's educational attainment and labor market position is assumed to have a positive impact on marriage formation since a higher earning capacity even strengthens men's position as the main provider of the family and this makes them more attractive on the marriage market. Time used for the family is much more important for women than for men, who specialized completely on gainful employment (Becker, 1993, p.140). The higher man's income the more he can support a larger family (Kreyenfeld, 2001, 55). Therefore one would expect a positive relationship between male education and marriage formation.

The "economic independence hypotheses" is very popular among sociologists, as well as economists. It has still been criticized extensively, particularly for its assumption of a major gain to marriage trough a gender-specific division of labor (Oppenheimer, 1997), for assuming stable and common preferences of men and women (Gustafsson, 1991, p.413), and for being a theory of non-marriage instead of explaining delays in marriage (Blossfeld and Huinink, 1991; Blossfeld and Jaenichen, 1992; Oppenheimer, 1988). The most prominent arguments against the specialization model are therefore being addressed in the following sections, mainly examining alternative explanations for the effects of rising female education on marriage timing.

3.2.1 Denial or delay of marriage?

Economic theories argue that the declining marriage rates and rising divorce rates are a consequence of the abating ambitions of highly educated women to get married at all. However, in real-world conditions specialization within the household might not always be the best strategy but can be quite risky and inflexible when it comes to maintain a family's economic well-being over time. Often, it is necessary to have more than one earner in the household (Oppenheimer, 1997, p.450). The earnings potential of young

[5]This line of reasoning is discussed in chapter 4.

men is particularly stressed by Oppenheimer (1988, 1994, 1997, 2000). She argues that the pace of marriage formation is strongly affected by the pace and difficulty of the transition to a stable work career. Men's work careers and career maturity are playing a more important role than women's for the timing of marriage of both men and women because historically women's marriage timing have primarily been a function of young men's economic characteristics and not the other way round. Especially if young men's career prospects decline and the transition to a stable work career becomes difficult, they will prefer women with whom they can pool earnings rather than women who will not work for pay (Cherlin, 2000, p.130). Taken this into account, highly educated women with greater labor market potential should be more attractive to their future spouses than less educated women with poor employment prospects - particularly in times of economic uncertainties and insecurities for men.

Another factor which Oppenheimer and others emphasize is the fact that women's greater economic independence leads not necessarily to a decline in the proportion of women ever married but mainly to an increase in delayed marriage. She proposed an alternative model of marriage where she incorporated ideas from job-search theory into a search-model of marriage timing (Oppenheimer, 1988). In this model, greater economic resources of women lead to later marriages due to increasing women's incentive and financial ability to search longer for an appropriate mate. Greater economic independence allows women to search longer for an acceptable match and reduces the probability to remain in unhappy marriages. It is therefore not a matter of reduction in the gains to marriage in *general* but it reduces the gains to *some* marriages. The desire to marry remains high, also for women with high education and greater labor force participation.

3.2.2 Changes in women's bargaining position

Following Oppenheimers theory of marriage timing and assortative mating, bargaining models also consider changes in the timing of marriage but argue that this is due to different preferences of spouses and changing bargaining positions within a relationship.

The specialization model assumed identical interests of husbands and wives, where evolution made women better in raising children and men better at working outside the home. Therefore, it seemed that specialization

within the household would be the best way to maximize utility and there would be no need to bargain about social roles inside and outside the house (Cherlin, 2000, p.139). During the 1950s and 1960s this model conformed to the family situation in most European countries: women married young, had their children quickly after marriage and spent most of their time as mothers and housewives. However, since the mid-20th century, men's and women's roles have changed. The introduction of oral contraceptives in the first part of the 1960s enabled women to plan their family life and the number of children they want to have. The results were less unwanted children and a loosening of the close ties between sexuality and marriage for the first time. Due to free and reliable family planning, women had now the opportunity to plan their own education and employment in a certain long run, without the worries of being interfered by a pregnancy. In the literature, this has often been discussed as one of the reasons for the strong increase in female education during the 1960s and 1970s (Huinink, 1989). The development was also fostered by an expansion of the public and private service sector as well as by a growing economic need to integrate women into the labor market, on the one hand because the potential of qualified men was not sufficient anymore, on the other hand because rising prices made it necessary to have two sources of family income. Women's movements and late 1960s youth radicalism pressurized the "traditional" family additionally, with husband as main breadwinner and wife as homemaker and mother only.

It became clear that the interests of men and women within an intimate relationship were not identically anymore but that partners had to establish their roles through a process of bargaining. Bargaining theory therefore allows for two decisionmakers with distinct interests and preferences, instead of treating the family as though it was a single decision-making agent as assumed in a common-preferences-model (Lundberg and Pollak, 1996; Manser and Brown, 1980). In the last decades, the bargaining position of women has improved because of their greater earning potential, better birth control technology and the availability of abortion. Within this context, delayed marriage can be explained by the fact that women incorporate premarital cohabitation into search and bargaining processes because cohabitation provides better opportunities to observe men's earnings potential and willingness to share household and childrearing tasks (Cherlin, 2000). This approach explains decreasing marriage rates, or at least the delay in mar-

riage, by attributing higher ages at marriage to the improved bargaining position of young women with high earning potential. Women with substantial earning power - those with a higher education, for example - can use their market strength to find a suitable partner while women with only little earning potential might find it more difficult to find a potential mate since their bargaining position weakened.

Increases in women's earning potential may also increase the educational homogamy of marriages. Due to women's longer participation in the educational system, they are more likely to meet prospective spouses at higher levels of schooling such as university (Mare, 1991). Also men should increasingly prefer women with a high income potential if wife's income becomes an important prerequisite in dual–earner societies. However, in countries where the male breadwinner norm is still existent, best educated women who are not successful in finding an equally qualified partner will be less likely to marry at all if they have to marry downwards (Blossfeld and Timm, 2003). Also the least qualified men should have the highest likelihood of remaining single because they are not very attractive marital partners in societies with a dual–earner norm. In societies with more gender egalitarian norms, downward–marriages of highly educated women might be socially more accepted since men are not regarded as the main breadwinners in the household anymore.

3.2.3 Empirical evidences

Next to the theoretical discussion, the effect of female education on union formation has been subject of many empirical studies. Some researchers used educational attainment, some educational enrollment, some economic potential or economic resources of women for measuring women's economic independence. Most of these studies found the direction of the effects of rising female education not as clear as suggested in the economic model of marriage.

Previous empirical research is still unclear about the meaning of female education. Some studies from different countries have found negative effects of female education on marriage (Klein and Lauterbach, 1994, [western Germany]; Brüderl and Diekmann, 1994, [United States, western Germany]; Manting, 1996, [Netherlands]; Luxán et al., 1999, [Spain]; Baizán et al., 2003, [western Germany]), others estimated very weak or no effects of educational

level (Hoem, 1986, [Sweden]; Liefbroer and Corijn, 1999, [Netherlands, Flanders]; Berrington and Diamond, 2000, [Great Britain]), or - contrary to the economic independence hypothesis - even positive effects of education on marriage rates (Thornton et al., 1995, [United States]; Bracher and Santow, 1998, [Sweden]; Kravdal, 1999, [Norway]; Goldstein and Kenney, 2001, [United States]; Duvander, 1999, [Sweden]). Also studies that used economic potential or economic resources of women as explanatory variables found no evidence for the independence hypothesis (Oppenheimer and Lew, 1995, [United States]; Xie et al., 2003, [United States]; Smock and Manning, 1997, [United States]; Sweeney, 2002, [United States]; Lichter et al., 1992, [United States]).

Many studies found prolonged educational enrollment to be responsible for the rise in the age at marriage (Blossfeld and Huinink, 1989, [western Germany]; Blossfeld and Huinink, 1991, [western Germany]; Blossfeld and Jaenichen, 1992, [western Germany]) and reasoned that it is not the educational attainment per se but educational enrollment that influences marriage timing. Better educated women marry later but not essentially more rarely. It is not the rise in human capital investments of women that leads to delayed marriages but women's longer participation in the educational system. During education, young adults are mostly not yet independent from their own parental home and also not yet financially independent. Long-term binding commitments like marriage or the birth of a child are often incompatible with the requirements of their education and hinder flexibility and mobility which is often part of higher education. Besides, the legal consequences of a marriage are quite substantial - in times of uncertain future prospects, as it is the case during education, less binding relationships like unmarried cohabitations are therefore preferred (Berrington and Diamond, 2000, [Great Britain]).

Apparently, empirical evidence for the influence of female education or female economic resources on marriage behavior is mixed. The different findings might be the result of different measurements of women's education or their economic situation. They might also occur due to different national settings. For example, in countries with a very traditional gender division of labor, women's economic potential can have a negative effect on the transition to marriage. Highly educated women in particular try to avoid marriage

if marriage affects women's labor force participation negatively, for example when a subsequent birth after marriage formation increases opportunity costs of children. In countries where the compatibility of work and family life is supported by the welfare state, women can lower their opportunity costs of childbearing since the care of children is not equated with a loss of income. Ono (2003) showed that in Japan, a country with a relatively high degree of gendered role differentiation, women's higher levels of income discourage first marriage formation, while in more egalitarian settings such as in the United States and Sweden, higher levels of women's earnings are linked to a greater chance of first marriage at a given time. There seems to be evidence of a change in the direction of effects of women's educational attainment and economic situation from negative to positive for younger birth cohorts in countries where women are increasingly expected to work outside home over the course of their lives (Duvander, 1999; Goldstein and Kenney, 2001; Sweeney, 2002). Le Goff (2002) observed a higher risk for subsequent marriage after cohabitation for highly educated women in France, a country with comparatively high maternal employment rates, compared to women with lower education. In the more traditional context of West Germany, he observed the opposite effect: lower educated women had a higher risk of subsequent marriage than higher educated women. The positive effect of female economic potential on marriage in some countries supports Oppenheimer's theory and is contrary to Becker's specialization and trading model which does not seem to provide an appropriate understanding of contemporary marriage anymore (Sweeney, 2002, p.143).

Though most of these studies focused on the impact of educational enrollment or attainment on marriage formation, also entry into cohabitation is influenced by education. In countries where cohabitation has become a conventional type of union, positive, very small, or non-significant effects of educational attainment on the transition to cohabitation have been detected (Bracher and Santow, 1998, [Sweden]; Hoem, 1986, [Sweden]; Liefbroer and Corijn, 1999, [Netherlands, Flanders]). For France, Leridon and Toulemon (1995) found that French women with a higher education marry less, but cohabit more often than women with lower education.

Contrary to the role of women's education, the role of men's education and particularly their economic position seems to be far more defined. A higher educational attainment encourages marriage formation as well as do

high earnings (Oppenheimer, 2003, [United States]; Goldscheider and Waite, 1986, [United States]); Xie et al., 2003, [United States]. If a man's economic situation is poor or within a period of employment instability, he is less likely to marry and more likely to separate or divorce than a man with greater economic resources (Smock and Manning, 1997, [United States]), he is also more likely to cohabit than to marry (Clarkberg, 1999, [United States]; Oppenheimer, 2003, [United States]). Men's employment is an important condition for the entry into marriage, their economic characteristics are more important for the entry into marriage than for the entry into cohabitation (Kalmijn and Luijkx, 2005, [Netherlands]; Bracher and Santow, 1998, [Sweden]; Xie et al., 2003, [United States]). However, as women's economic situation improves, the wage gap between men and women becomes smaller and women are expected to make larger contributions to the economic maintenance of their family, one might expect that male labor market position would become less important for marriage formation (Sweeney, 2002).

3.2.4 Summary

Researchers that analyzed the role of education and the economic position of women in the process of marriage formation differ about its causes and implications. Theoretically, there are two main contrasting approaches concerning this relationship: those who attribute declining marriage rates to the growth in female economic independence and those who do not.

Following Becker's argumentation, one would expect that increases in female earning power and women's participation in the labor market would discourage women to enter into marriage because of reduced economic gains from the union. This negative connection between women's economic independence and marriage formation has been questioned by many authors (for example Cherlin, 2000; Manting, 1996; Oppenheimer, 1994, 1997). Instead of an overall decline in marriage, as predicted in Becker's theory (1981), they expect a delay in marriage (for example Blossfeld and Huinink, 1989; Blossfeld and Jaenichen, 1992; Oppenheimer, 1988). The *timing* of marriage becomes emphasized : longer enrollment in education and longer periods at work are thought to delay marriage. Since marriage no longer plays such a major part for women in acquiring financial stability, they can search longer for an appropriate mate which delays marriage formation (Oppenheimer, 1988). Moreover, the role of men's economic position is discussed. Rather

than women's economic independence, difficulties faced by young men in the labor market are assumed to be responsible for recent changes in marital behavior because marriage becomes more and more unaffordable and makes men less attractive in the marriage market(Oppenheimer, 1997).

Concerning cohabitation, the perspectives differ as well. Within the economic perspective, the effect of an increase in women's economic independence on entering cohabitation is assumed to be on the one hand the same as for marital unions since it reduces interdependence between the partners. On the other hand, it might also make nonmarital unions more attractive since individuals can gain from the economic advantages of a shared household while maintaining their relative independence. As a result, women's economic independence may have no net effect on cohabitation. Bargaining theory assumes that if the bargaining position of women improves, they can incorporate premarital cohabitation into search and bargaining processes to find a suitable partner. The prolongation of education also leads to an increase in less–binding relationships such as nonmarital cohabitations since long–term commitments such as marriage with its legal and familial obligations are delayed. The deterioration of young men's labor market position makes men search longer for a match and might turn him to cohabitation as "an interim arrangement" (Oppenheimer et al., 1997, p. 313). In all cases, cohabitation is viewed as a prelude to marriage and cannot explain why people might remain in cohabitation without considering marriage.

Empirical studies are also contradicting - some find higher education and positive economic situations for women to encourage marriage, others suggest that individual-level indicators of women's economic potential have no or only a little effect on the transition to marriage. Researchers are still unclear whether high earnings, for example, strengthen women's position in the marriage market or reduce their need for marriage. In addition, the connection between education and union formation might have changed over time and differ between countries: hence, it is important to consider cohort changes and the national setting in which union formation takes place in the analysis of union formation behavior.

3.3 Ideational theory

A theoretical explanation from a generally sociological perspective for the decline in marriages and the growing number of consensual unions has become known as ideational theory. It assumes that changes in our normative (value) system and the degree of institutional regulation have a direct impact on family change. According to the theory, there has been a definite ideational change in Western societies over the last century that has shifted the norms from family-centered orientations to relatively more self-oriented pursuits (Wu, 2000). A value change has firstly been discussed by Inglehard (1977). He argues that values changed from materialistic towards post-materialistic. Traditional social norms and values decreased, values that geared to individual autonomy, participation, self-fulfillment and quality of life obtained priority. This change is believed to be the driving force underlying the changes in family behavior that have been observed over the last decades.

3.3.1 Second demographic transition

The ideational theory has been linked to observed demographic developments by Ron Lestaeghe and Dirk van de Kaa who introduced the term *Second Demographic Transition* (SDT)[6] (Lesthaeghe and van de Kaa, 1986). Proponents of the Second Demographic Transition argue that emerging behaviors are the manifestation of new lifestyle choices related to ideational and cultural change in combination with the "contraceptive revolution" (Lesthaeghe, 1992; Lesthaeghe and Neels, 2002; Lesthaeghe and van de Kaa, 1986; Sobotka, 2008; van de Kaa, 1987). While traditional social norms and values decreased, values that geared to individual autonomy, participation, secularization, rejection of authority, self-fulfillment and quality of life obtained priority. This change is believed to be the driving force underlying the changes in family behavior that have been observed over the last decades. It is assumed that this process is irreversible and that not all Western nations have already reached this stage, but that the leads and lags follow a North–South axis. The start of the second demographic transition is often

[6]The first demographic transition in Europe began with a decline in death rates in the early 19th century, followed by a fertility decline beginning around 1880 in most countries (earlier in France) and led finally to birth and death rates at low levels by the 1930s.

be set at 1965 (van de Kaa, 1987). According to van de Kaa, changes in family formation have been accompanied by four shifts (van de Kaa, 1987, p.11):

1. *From the golden age of marriage to the dawn of cohabitation.* Marriage rates dropped rapidly, the proportion ever married in each generation declined, remarriages became less likely and divorce rates showed a substantial rise since the mid 1960s. Other forms of living, such as consensual unions, gained importance. 2. *From the era of the king-child with parents to that of the king-pair with a child.* This second shift refers to the decreasing meaning of having children within a partnership. The couple itself becomes more and more important, their relationship, their problems and their well-being. 3. *From preventive contraception to self-fulfilling contraception.* According to van de Kaa, effective birth control methods not only helped to prevent births but enabled individuals to achieve greater self-fulfillment by permitting greater freedom in sexual relations (van de Kaa, 1987, p.26). 4. *From uniform to pluralistic families and households.* This fourth shift refers to household patterns. The once uniform pattern of the nuclear family household (a married couple and their children) has been replaced by a new diversity of living arrangements - a growth in one-person households, more single-parent family households, and a strong increase in the proportion of young people living together without marriage certificate.

One of the preconditions for these behavioral changes has been technological innovation. The availability of efficient contraceptives after the mid 1960s and wider access to legal abortion reduced the likelihood of forced marriages to a great extent. Since a marriage has been viewed as moral obligation after a pregnancy, by introduction of reliable contraception many women could avoid unwanted births and therefore also unwanted marriages. Besides, modern contraception, especially the pill, permitted greater freedom in sexual relations and enabled couples to postpone the birth of their first child. Sexual relations were not primarily aimed at procreation anymore (van de Kaa, 1987, p.11). This had also an impact on the norms regarding sexual and reproductive behavior (Kantorová, 2004, p.90) which also led to a wider acceptance of cohabiting relationships and non-marital births.

Following the idea of the importance of female education on union for-

mation, one could argue that education can be used as a proxy for the value changes associated within the Second Demographic Transition approach (Perelli-Harris et al., 2009). Lesthaeghe and Surkyn (1998) stress the importance of education for the spread of post–materialist values. People with higher education have values and preferences distinct from individuals with lower education – not necessarily due to effects of education itself but also (self–)selection in higher education plays a role in value orientation (Sobotka, 2004). Individuals with higher education are less sensitive to social pressure and embrace values such as autonomy, independence, and self–realization. Research from the World Values Survey shows that individuals with higher education are more committed to individualism and gender equality and less supportive of authority (Weakliem, 2002). Also other studies provide strong support for the idea that highly educated individuals have been the forerunners in the values and behavior associated with the transition (for example Baizán et al., 2003; de Feijter, 1991; Rosina and Fraboni, 2004). With the expansion of education and the growing share of better educated women, new lifestyles including extended periods of single living, cohabitation or same–sex partnerships spread from the higher educated to all other social groups through the process of diffusion (Sobotka, 2004). It then became integrated into the process of family formation in varying degrees in most of the European countries.

The concept of the SDT has attracted a lot of attention as well as critical doubts. For many critics, the concept of the Second Demographic Transition is merely a description than an explanation of recent demographic developments. Some doubt that the changes were gravely enough to speak from a second demographic transition (Cliquet, 1991). Another common criticism concerns the focus on the (North–western) European perspective which disregards the fact that the SDT is well underway in non–European advanced societies such as the U.S. and Japan, but the differences in family-related behaviors and attitudes between North–western Europe and most advanced Asian countries remain enormous (Sobotka, 2008, p.174). Others point out that there is still great variations in all European countries in terms of timing and progression of the transition and no convergence of family patterns in Europe can be identified (Billari and Wilson, 2001; Kaufmann et al., 1997). They argue that the general and universal process of modernization will

have different outcomes in each country depending on the historical roots of certain family systems in Europe. Another criticism concerns the fact that lower–educated individuals – though displaying more "traditional" or "conservative" values than higher educated – are often early adopters in the spread of cohabitation, non–marital childbearing, and unstable living arrangements, especially in post–communist countries of Europe (for example Kantorová, 2004; Koytcheva, 2006) but also in Sweden (Hoem, 1986) or the United States (Bumpass et al., 1991). Regarding the differences concerning the role of education in the diffusion of cohabitation across countries it can be argued that some behaviors associated with the Second Demographic Transition spread first as a reaction or an accommodation to economic and social disadvantages, rather than an alternative lifestyle of highly educated individuals (Sobotka, 2008). As another one of the shortcomings of the Second Demographic Transition theory a lack of an explicit gender perspective has been mentioned (Bernhard, 2004). The increase in individualism, autonomy, and self-fulfillment has been certainly more revolutionary for the lives of women than for the lives of men. While women have entered the public spheres of education (especially at higher levels), employment, and political life, gender equity in family–oriented institutions has not spread through all countries in the same way. In particular, values and actual behavior must not be identical. Individuals with egalitarian values do not necessarily act in accordance with these values. One example would be the division of labor in the household, where ideal and reality are often far apart from each other. In virtually all societies, men share much fewer domestic responsibilities with their wives than women share economic tasks with men. It is therefore argued that the Second Demographic Transition theory could be enhanced by a stronger gender perspective (Bernhard, 2004, 27).

3.3.2 Individualization

The aspect of individual autonomy is also stressed within the framework of the *individualization thesis* (Beck, 1986; Beck and Beck-Gernsheim, 1990). Beck speaks from two episodes of individualization: the first concerned mainly men during industrialization, the second changed the role and life courses of women after the Second World War (Beck, 1986). One part of this theory assumes that the decreasing relevance of the traditional model of the family - marriage and parenthood - with its binding and normative-marked

guidelines and, accompanied with that, the release (*Herauslösung/Freisetzung*) of men and women out of their traditional, normative defined gender roles, led to a growing diversity of family forms (Huinink and Wagner, 1998). Individualization means here that each person's biography is removed from given determinations and placed in his or her own hands (Beck, 1992, p.135). On the one side, actors gain more freedom by avoiding strong social control. On the other side, they have to make decisions on their own, take responsibility for their decisions and take into account the consequences of those (Beck, 1986, p.216ff.). The force for constructing its own biography created also more risks in the individual's biography and has been accompanied by the loss of personal relationships and traditional securities (*Entzauberungsdimension*). New types of social integration had to be searched for (*Kontroll-/Reintegrationsdimension*) (Beck, 1986, p.206).

This has especially made its impact on the role of women. During the welfare state modernization after the Second World War, women have been released from their traditional existence as housewives and marriage dependency. Going along with that, the whole system "family" got into the pressure of individualization (Beck, 1986, p.208). This development got accelerated by the expansion of education, the decoupling of sexuality and reproduction and the increase in female labor market participation which enabled women to live economically independent from their partners. On the one side, long-term relationships like marriage and children hinder individual freedom and the pursuit of independence. On the other side, however, in the course of the loss of traditional securities, the relevance of intimate partnerships and affection has also increased (Beck and Beck-Gernsheim, 1990). For young women and men, partnership and parenthood are still important goals in life, which they try to reconcile with their individual biography. As a consequence, the *pluralization* of family forms - the growing heterogeneity of living arrangements and therewith also the decreasing meaning of marriage - has been detected as one result of individualization (see also the fourth shift in van de Kaa's definition of the Second Demographic Transition). This topic has been particularly discussed in the German-speaking literature (Beck, 1986; Peuckert, 2004; Zapf, 1987). Some authors oppose this connection (Huinink and Wagner, 1998; Nave-Herz, 1997; Strohmeier, 1993; Wagner and Franzmann, 2000) or they qualify it (Brüderl, 2004; Schneider, 2001) by arguing that there is no real empirical evidence for such a growth

in pluralization. The debate on pluralization is missing a systematical and theoretical well–grounded system of indicators. Critics argue that there is no theoretical and empirical proof that a growth in individual autonomy results in a growing variety of living arrangements. Individualization, understood as a reduction in traditional normative commitments, does not imply per se an increase in the choice of living arrangements (Huinink and Wagner, 1998). A weakening of traditional norms can also be replaced by new regulations and institutions. Plurality might also result from increasing structural or economic constraints and increasing individual demands (Schneider, 2001). Some contrast the idea of a pluralization with a "*polarization hypothesis*" (Huinink, 1995; Ostner, 2001; Strohmeier, 1993) by distinguishing between couples who decide to marry and have children – the family sector – and those who neither marry nor have children – the non-family sector. Indicators for such a differentiation have been partnership status, number of children and employment status. Only in the latter group the discussed pluralization of private living arrangements occur. It is argued that such a polarization is also status-dependent: the family sector consists of a high share of low qualified individuals, in contrast to the non–family sector where no such difference in status exists (Strohmeier, 1993). However, since this study is only cross–sectional, it can only give information on particular points in time and does not tell anything about period changes or changes in life courses.

Theoretical foundation on the connection between individualization and the pluralization of private living arrangements is still vague and misses empirical evidences in countries with similar value changes but different patterns of family formation behavior. International comparative studies (for example Klein et al., 2002; Kuijsten, 1996) show that even though almost everywhere in Europe we find proof of individualization and pluralization, "... in each case this pluralization has another face" (Kuijsten, 1996, p.115). One observes substantial differences in intensity of these processes and, more important, differences in the way they find themselves transformed into changes in family-life form patterns. There are still strong cultural and ideational factors that influence patterns of family life–forms and living arrangements in Europe (Kuijsten, 1996). These patterns correlate with socioeconomic conditions, sociocultural traditions and country–specific family

policies (Klein et al., 2002). The next two chapters address the issue of the effect of cultural and institutional differences on union formation behavior.

3.4 Cultural differences

The idea of the SDT with its widely shared behavioral and value changes lead to criticism among authors who emphasize the persistent diversity in family patterns and living arrangements across Europe (Sobotka, 2008). Though almost all countries are affected by the process of industrialization, modernization and individualization, the cultural heritage of a society produces its own *path dependency* (Inglehart and Baker, 2000). Consequently, some authors, especially those that look at differences between Northwestern and Southwestern Europe, emphasized the role of long-term cultural continuities that have been shaping the diversity of Western European societies, in particular concerning the strength of intergenerational ties (Micheli, 2000; Reher, 1998). These conditions influence life course transitions.

Micheli (2004) and Reher (1998) argued that the general and universal process of modernization will have different outcomes in each country because of the different historical, cultural, geographical or social realities. These different regional path-dependent processes arise out of the historical roots of certain family systems in Europe. Linton (1936) distinguished two kinds of family patterns: the *conjugal* family based society in which family consists of a nucleus of spouses and their offspring and the *consanguine* family based society in which the family is a nucleus of blood relatives surrounded by the spouses. The latter ones are the so-called "strong" family systems. The family is seen as defending its members against the difficulties imposed by social and economic societies (Reher, 1998). The Mediterranean countries belong to this latter group. Families have to support the vulnerable members of the families, e.g. children, unemployed adults or lone-parents. Grandparents have to care for their grandchildren when the mothers enter the labor market. There exist very strong ties between parents and their children, observable in the moral duty to transfer resources and service from parents to children and vice versa. The lack of cohabitation in Italy for example, is explained by the strong ties between parents and children and not so much due to the low level of secularization or the catholic church (Rosina and Fraboni, 2004). Yet, the connection between religion and family life is

another important aspect. Marriage, sexuality and childbearing have been influenced by the ethics of churches for centuries (Thornton et al., 1992). The religion in which an individual is brought up is expected to influence entry into marriage or cohabitation due to its impact on certain economic and demographic variables that also influence union formation behavior. Religion can affect the choice of union, attitudes towards premarital sex, desired fertility, expectations regarding the intrafamily division of labor over the life cycle, or divorce (Lehrer, 2000). In Europe, the two most important religious groups are Protestant and Catholics. Historically, the Catholic church has been more authoritarian than the Protestant church. The Roman Catholic church declares marriage to be a sacrament, proscribes premarital sex and forbids artificial means of contraception. In catholic countries, rather traditional union and family formation patterns are witnessed (e.g. in Italy or Poland). Reformation on the other hand had an important influence on the development of individualism in the northern countries of Europe, while Catholicism contributed to the continuation of hierarchical structures (Schröder, 2008). Some authors argue that it is not the Catholic family morality per se that determines the traditional view of family, but the connection between the Roman Catholic church and the socio–cultural pattern of close kin ties in southern Europe: Catholicism reinforces familism, and vice versa (Schröder, 2008). In weak family areas[7], young adults are encouraged to live their own life and make their own experiences to become autonomous individuals. Vulnerable members of the family, like the needy, the poor or the elderly, are looked after in public and private institutions and not so much within the family (Reher, 1998). Reher concludes that even though certain external indicators of family change in Europe will converge, the deep disparities that have always characterized family in different regions and cultures in Europe will not be undermined. Also Micheli (2004) proposes that family patterns in Europe remain strongly regionally embedded. In contrast to Northern Europe, modernization is assumed to have led to a revitalization of the *kinship–alliance family patterns* in the South. The universal factors of modernization, as discussed in section 2.3, will always be shaped by the different historical, cultural and geographical experiences.

[7]Weak family areas are the northern part of Europe, even though some countries, such as France and Germany, do not fit that easily into either system.

The same direction of reasoning comes from Nazio and Blossfeld (2003) who discussed the diffusion of cohabitation. The increase and spread of (premarital) cohabitation can be understand as a process of diffusion, in which innovative behavior spreads from one local, social group or individual to another (de Bruijn, 1999).

In the 1960s, cohabitation was a social innovation, it became then integrated into the process of family formation in varying degrees in most of the European countries. Successful diffusion of social innovations follows a common pattern: a new social practice is introduced by prominent examples, it is adopted at a rapidly accelerating rate, this rate than gradually slows down and finally either stabilizes or declines depending upon the extent of the advantage of the new practice (Nazio and Blossfeld, 2003, p.49). In the course of the diffusion of pre-marital cohabitation within a given society, each new cohort of women entering the phase of being ready for partnership formation will encounter an increasingly larger proportion of prior adopters from previous cohorts - each new cohort will experience pre-marital cohabitation as less deviant/stigmatized and more socially acceptable living arrangement. The mass media (newspapers, magazines, radio, television) spreads information of each new generation on benefits and costs of new living arrangements which might create additional motivation for its adoption. In an early phase of the diffusion process, young adults often need to confirm their beliefs about cohabitation through direct experiences, they need concrete examples like cohabitation of peers. At the heart of the diffusion process there is direct social modelling by potential adopters of their peers who have adopted previously (Nazio and Blossfeld, 2003, p.51-52).

Three main stages are widely shared across countries (Sobotka and Toulemon, 2008, p.99):

1. Diffusion: An increasing proportion of young adults enter a consensual union at the beginning of the partnership, and this eventually becomes a majority practice;

2. Permanency: Cohabitation lasts longer and is less frequently converted into marriage;

3. Cohabitation as a family arrangement: Pregnancy stops to be a very strong *determinant* of marriage among cohabiting couples and, as a result, childbearing among cohabiting couples becomes common.

In sum: the normative context in countries affects the rate and form of the diffusion process of pre-marital cohabitation and eventually leads to a path dependent development in each nation (Nazio and Blossfeld, 2003, p.49-50). In a country with a strong normative opposition against social change, the effect of peer group adoption will be small since the cultural climate as well as the mass media hinders the spread of knowledge-awareness. Also in traditional family systems, the diffusion of cohabitation is supposed to remain slow. Therefore, cultural traditions, social institutions and political contexts determine the degree in which new forms of partnerships spread through society and also offer explanations for differences in the degree of cohabitation between countries or regions. We will deal with the explicit situation in France and western Germany in detail in Chapter 4.2 where the diffusion and meaning of marriage and cohabitation in past and present will be illustrated.

3.5 The institutional perspective

Another approach as to why and when people marry is coming from an institutional perspective. Institutions establish a set of opportunities and constraints to which young adults respond and which establish normatively appropriate ways of behaving. International differences in union and family formation behavior might be explained by institutional variations. Those can be conceptualized in terms of welfare regime types, labor market regulations, and educational systems (Breen and Buchmann, 2002, p.288). Besides, tax and transfer payments can support certain family models or they can exclude them. In that way, they define the individual room for maneuver and set incentives for the choice of living arrangement. Additionally, sociopolitical conditions can shape social inequality and inner-familial dependency which can differ strongly by country (Konietzka and Kreyenfeld, 2005).

Classical welfare state research (Esping-Andersen, 1990; Lewis, 1994; Ostner, 1995) focussed on the relationship between market, state and family. How can individuals keep their living without being dependent on the market, how can market-produced social risks be attenuated or even compensated by the welfare state? In that sense, welfare states are supposed to be

classified by the degree of *decommodification*, that means to what extent can alternative, non-market means of welfare production be provided to release individuals from market dependency (Esping-Andersen, 1998, p.36). This varies in the international perspective which led Esping-Andersen to group states according to the extent of their decommodification. He classified countries into three groups (Esping-Andersen, 1990): 1. *Liberal welfare states* (United States, Canada, Great Britain, Australia) which are characterized by low universal transfer payments, low social security benefits, a low degree of decommodification, and welfare benefits which are mainly beneficial for the poor. Entry requirements are in the majority of cases very strict. 2. *Conservative welfare states* (continental Europe like Austria, France, Germany, Italy) where the male breadwinner model is still the prevailing family type, and non-employed/non-married women are mostly excluded from parts of the social security system. There, we find employment related and marriage related entitlements; the family is mainly responsible for the welfare of their members. 3. *Universal or social-democratic welfare states* (Norway, Sweden, Denmark, Finland) which are characterized by universal, strongly decommodified individual rights, salary compensation benefits to which everyone has access, and a high degree of equality. The state takes the main responsibility for welfare production by supporting families and the elderly.

He has mainly been criticized from feministic side, since he argued predominantly out of a male perspective. The focus on decommodification as the most important feature of welfare state classification implies a degree of labor market integration which has not been achieved by the majority of women in many industrialized countries (Meyers et al., 1999, p.119). Gender specific division of labor keeps women away from the labor market and reduces them mainly on unpaid family work (Lessenich and Ostner, 1995, p.784). Therefore, comparative welfare state research has to consider the extent in which single countries enable and accelerate female employment resp. a gender-equitable access to the labor market. Three aspects are important in this regard (Neyer, 2005, p.93): First, whether family policies encourage women's employment and secure their employment maintenance irrespective of their care obligations. Secondly, does this employment provide social-security coverage and an income sufficient to maintain a household? And thirdly, whether benefits compensate for income loss and guarantee a livelihood beyond a minimum level in case of care obligations. By an-

alyzing tax systems, social security systems, child care arrangements and labor market behavior of married women, international comparative studies found considerable differences within Esping-Andersen's classification - especially the group of conservative welfare states presents itself very heterogeneous (Anttonen and Sipilä, 1996; Gornick and Jacobs, 1998; Gornick et al., 1997; Langan and Ostner, 1991; Orloff, 1993; Ostner, 1995). Also France and Germany have often been classified as conservative-corporatist welfare states though studies detected strong differences between both countries, especially concerning gender and family dimensions.

Langan and Ostner (1991) concentrated on the question how the welfare state and its social policies regulate gender relations. In western Germany, one-earner-families are supported by special labor market and tax policies that give incentives for a sex-specific division of labor within the household. Women are treated mainly as being discontinuously employed and are supposed to be secured through their roles as wife and mother. In western Germany, the sequential compatibility of work and family life is facilitated instead of preferring a simultaneous compatibility as is the case in the Scandinavian countries, but also in France (Langan and Ostner, 1991, p.311). Thus, France establishes a regime of its own instead of belonging to the conservative regime. Since France has been traditionally focused on agriculture, women were not only expected to be mother and housewife but also worker. But also the early decline in birth rates long before World War II and the growing childlessness encouraged policies that should enable women to arrange professional and family life. However, despite this difference to Germany, also in France wage inequality between the sexes exist and an employed husbands is mostly necessary for supporting the family (Langan and Ostner, 1991, p.314).

Also Lessenich and Ostner (1995) concentrated on the differences between France and Germany. Though both countries share a social-catholic heritage which produced common normative concepts of social order and institutional characteristics, there are distinctive differences between them. If one follows Esping-Andersen's logic of decommodification, those would be very hard to distinguish (Lessenich and Ostner, 1995, p.787). Social transfers are a traditional element of French wages, to guarantee sufficient earnings for the whole family. Furthermore family policies have long been dominated

by pro-natalist aims, aiming at stopping the decline in birth rates. Social policy in Germany concentrated since the 1880s on improving the situation of employees and not so much of families. Employees were safeguarded against risks on the labor market to absorb the income losses of the partner that stayed at home (Lessenich and Ostner, 1995, p.789). To know about these backgrounds help to understand the differences between both welfare states. Many French women work full-time while western German women often leave the labor market after childbirth to return after a while, often working part-time. Women in France are treated as mothers and employed family members at the same time. Regarding social and family policies, not the kind of union is of particular interest (as for example is the case in the German preferential treatment of marriage) but the well-being of the child. However, the focus of state intervention is not on the equal treatment of men and women as individuals but of mothers and fathers as parents. Though French women might be better integrated in the labor market than western German women, they are not equated with men in family, market and state (Lessenich and Ostner, 1995, p.795).

Gornick et al. (1997, 1998) and Meyers et al. (1999) discussed in their studies, how family policies influence female employment and the relation between state, market and family. Various indicators which are connected to the degree of female employment are discussed in a comparative perspective. Comprehensive and affordable day care is viewed as supporting mothers employment since the costs of child care can be understood as a kind of "tax" on the income of mothers: an increase in these costs would have the same effect as decreasing wages and make employment more unattractive (Meyers et al., 1999, p.121). Another indicator they discuss is maternal and parental leave which can be interpreted as supporting at least in the short term labor market integration of mothers. Particularly due to the job protection before and after delivery women are prevented from losing their job. The authors investigated 14 countries during the 1980s that differed from the welfare state regimes of Esping-Andersen in various aspects. Norway for example falls out of the social-democratic group since it provides only limited access to day care for small children. The remaining scandinavian countries, Finland, Denmark and Sweden, form a group together with France and Belgium by allowing women with small children to reconcile work and family due to a broad range of child care facilities. Most of the continental-

European countries, including Germany, as well as Canada and Norway, only provide limited support for women with children. Parental leave regulations are generous but child care, especially for children under three years old, is under-developed. The liberal countries, except Canada, are characterized by low paid and short parental leave and low provision rates of public child care. The authors conclude that Esping-Andersen's classification has to be re-specified. For example, though he classifies Germany and France into the group of conservative welfare state regimes, both countries differ extremely regarding the provision of supporting benefits and measures for mothers.

As a response to this criticism, the concept of *defamilialization* has been introduced (Esping-Andersen, 1999). Defamilialization means the degree to which women are released from familial dependency, thus the adoption of former family tasks from the state or the market[8]. To be commodified, i.e. to be integrated into the labor market, for women defamilialization is a prerequisite. In countries with a high degree of defamilialization, the state supports families by a complex system of family benefits, child care arrangements and a tax system that supports two-earner-households. Countries that committed themselves to a defamilialization are Denmark and Sweden (since the 1960s), Norway, Finland, Belgium and France (since the 1970s) (Esping-Andersen, 1999, p.51). Familialistic systems on the other side regard families as the responsible entity for the welfare of their members and mostly go along with passive and underdeveloped family policy, such as in Italy or Spain (Esping-Andersen, 1999, p.51). The majority of continental-European states penalizes dual-earner-households, only France and Belgium are an exception.

One could criticize that this concept focuses on the family and not on women. They eventually carry most of the burdens of care. Besides, female labor force participation cannot be equalized with emancipation and individual autonomy of women. A high share of employed women does not mean that they are relieved from their obligations. Only a fair inner-familial division of work and equality in public life can contribute to it.

Regarding familial dependency and the distribution of care, Neyer (2005) also highlights the gender aspect. Gender systems encompass both a division

[8]The impact of the market is not very strong in many European countries, since services like household helps or nannies are very costly.

of labor and a stratification of the genders. It defines the meaning of being male or female and the rights and obligations of males and females (Mason, 2001, p.161). Therefore, it is necessary to consider given gender differences in employment, income, and care. In countries where little or no accommodation has been made to the change in women's roles, and men are still assumed to be the main breadwinner, it is difficult for women to maintain independent and reconcile the demands of family life and a labor market career. Family-policy regulations must take into account gender relationships, either through their general set up or through active measures that aim to involve men into care work. When analyzing certain welfare states, the distribution of unpaid care work between men and women must be taken into account (Neyer, 2005, p.94). In familialistic welfare state regimes women's life is primarily determined by familial dependencies. If women have only limited access to employment and marriage presents the main institution of economic protection for women with children, unmarried parenthood will be avoided and a binding and legal confirmed institution like marriage will be preferred. In an institutional setting that encourages female employment, that gives no preferences to a particular kind of union through the tax and social security system and which helps individuals to keep their living without being dependent on the market or on a family member that acts a the main breadwinner, an institution like "marriage" is not a necessary precondition anymore - especially when children are involved. It might more and more be replaced by cohabitation - at least in the beginning.

Hence, a cross-country comparison should consider the importance of female employment (and therefore the basic covering over the market), the dependency from the partner's income (to what extent are women familialized) and the transfer dependency from the state for women in different living arrangements (Konietzka and Kreyenfeld, 2005). It should also discuss whether the state gives direct incentives for a particular type of union, or whether the principle of subsidiarity implies which means that families have to arrange their affairs on their own without state–run interference.

3.6 Summary

We have discussed several theoretical perspectives relevant to union formation behavior. The economic perspective predicts an overall decline in marriage. The theory argues that individuals choose to enter a union relationship instead of remaining single if they increase their utility with marriage. Maximized utility can be achieved by traditional sex-specific division of labor within the household: men engage in market work and women in domestic work. Becker (1973, 1981, 1993) states that women's economic independence and women's education undermine the division of labor and make marriage less beneficial. This theory focuses on the rise in human capital investments of women and the resulting consequences for marriage formation. In contrast Oppenheimer (1988) argues that the growth in women's economic independence mostly effects the timing of marriage and expects a delay in marriage rather than an overall decline. Proponents of this theory regard longer enrollment in education and longer periods of work as factors that delay marriage. Education is discussed as having a *structural* impact on union formation. Women's education or economic independence per se does not reduce their gain for marriage but it delays marriage formation and leads to a growth in less-binding relationships such as cohabitation. Additionally, men's role must not be underestimated - a weakening of their labor market position also delays marriage formation and leads to increases in cohabitations (Oppenheimer, 1988, 1994, 1997, 2000).

But are economic factors really the main determinants for a decline respectively a delay in marriage and the rise in cohabitation? Changes in union formation behavior can also be attributed to changing norms and values. From a sociological perspective, the recent changes in union behavior are interpreted as responses to the long–term ideational shift towards greater individualism and materialism. Less traditional living–arrangements such as cohabitation spread among the people with higher education to all other social groups. The role of education is conceived here in a very different way from the economists' treatment of it as a mere shadow price of human capital in the labor market. Instead, education is taken as a proxy for early cultural endowment (Lesthaeghe and Surkyn, 1998, p.17) and is assumed to have a *causal* impact on individual behavior. As a result, the expansion of education can, also in this framework, be viewed as one of the most impor-

tant factors for the declining importance of the institution of marriage, a rise in divorce, and the growth in less traditional unions such as cohabitations. However, this approach is more or less gender-neutral.

Despite the fact that in all western European countries female educational attainment and female labor force participation increased, marriage rates decreased and divorce rates increased, there are still major differences in the degree and meaning of cohabitation across countries. Authors who emphasize the persistent diversity in the cultural heritage of a society (Inglehart and Baker, 2000; Micheli, 2004, 2000; Reher, 1998) argue that cultural path-dependency leads to completely different origins regarding the extent and meaning of marriage and cohabiting unions and consequently to different patterns of union behavior today. Besides, different welfare state regimes produce different patterns of labor market integration of both men and women and strengthen or weaken therewith women's dependency from the institution of marriage. The rise in education and female employment per se does not necessarily lead to a growth in women's economic independence if country–specific structures hinder women and in particular mothers to translate their improved educational opportunities into an increase in their labor force attachment. Welfare state policies also influence legislation on marriage and cohabitation which again impacts the individual decision regarding union formation. All in all, longer schooling, greater difficulties in finding a stable job especially for men, the spread of modern conception, the regressing influence of the Catholic church as well as changing values and laws are all factors that contributed to changes in marital behavior in the industrialized countries[9].

The next chapter puts our theoretical discussion into the country-specific context: in what way influence family policies, labor market policies and legislation the different patterns of marriage and non-marital unions in France and western Germany? We also discuss the differences in the meaning of cohabitation in both countries as well as the historical origins of such differences.

[9]There may be other factors that determine the decision to marry or not to marry, for example high costs of a wedding, strong normative pressure on the choice of union type or perceived changes in the quality of the relationship after marriage (Kravdal, 1999, p.66–67). However, these factors are hard to control for within the framework of an empirical quantitative analysis.

Chapter 4

Contextual framework

4.1 Introduction

Institutional variations play a great part in the explanation of international differences in union and family formation behavior. This aspect has been already discussed in chapter 3, where it was argued that we find a specific structure of labor market regulations, educational systems, and changing laws in different countries and, resulting out of that, norms, values and attitudes that lead to different fertility and nuptiality patterns. There may be laws that discriminate economically against non–married couples or against the married. Marriage may be beneficial in terms of taxation, but also lone parents or cohabiting couples may profit from certain benefits like extra allowances or social support. This depends on the respective institutional and legal framework of the particular country. Besides, public policy may on the one hand support working mothers who thereby become independent of their husbands income and might not rely on the institution marriage as a means of financial and social protection anymore. On the other hand, there may be historically grown structures that support the non-employment of wives and mothers. Conditions regarding work-and-life balance therefore also have an influence on the organizational form of the family and therewith the economic autonomy of mothers. Additionally, regulations that treat children from unmarried parents different than "legal" children will have an effect on the choice of partnership. In the following chapters we would like to take a closer look at the contextual framework that influences the partnership behavior of men and women in both countries. Which social conditions

support or lessen the diffusion of new forms of partnerships?

Section 4.2 starts with a historical review on the extent and meaning of marriage and cohabiting unions in both countries. In section 4.3 differences in family policies, concentrating on child care, parental leave regulations, taxation and legislation will be presented. Are there incentives for people to get married, do we find preferences for marriages in family law or are all kind of unions treated equally? Subsequently, section 4.4 compares both countries in terms of how the welfare state might directly and indirectly support marriage and childbearing within marital unions by different labor market regulations and education systems.

4.2 The meaning of marriage and cohabitation in past and present

The choice of the starting point is crucial when studying changes in marriage behavior. When one goes back in time, already the period before World War II, when sex-role specialization in marriage was typical and long before the rise in women's economic independence, exhibited long-term fluctuations in age at marriage and in its variability[10] It is useful to keep in mind that cohabitation, a late age at marriage and non–marital births are not a new phenomenon but have a long standing history in Europe, even though due to completely different reasons. Therefore, this section contains a glance into the history of partnership behavior but also in the differences in union formation patterns nowadays.

Never have so many people been married than between the end of the 1950s and 1960s; before, many could not marry due to economic reasons or prohibitions of marriage (Nave-Herz, 2004, p.66). Cohabiting unions and non–marital births have been quite wide spread in pre-industrial times in poor social classes, even though legitimation rates after the birth of the child were quite high (Rosenbaum, 1996, p.427). On the contrary, unwed parenthood has been very unimaginable and penalized in the middle and higher classes. On the one hand, unmarried cohabitation and in particular births out of marriage were highly socially disapproved, on the other hand these

[10]The marriage pattern of most of Europe which existed for at least two centuries up to 1940 has been described as quite unique: the distinctive marks of this pattern were 1. a high age at marriage and 2. a high proportion of people who never married at all (Hajnal, 1965, p.101).

kinds of unions and ways of living were not that seldom in many European regions. During the 18th and 19th century non-marital births have been increasing drastically in a number of European countries, especially among the poor. Possible explanations were different strengths of religious behavior, but also the importance of restrictive marriage laws. The social norm during that time only allowed marital fertility. Many couples, however, could not afford or were - due to high marriage barriers - even not allowed to marry. For example, it was not until 1871, when all population groups in the German territory were allowed to get married. Before, many of them were not allowed to do so (Lauterbach, 1999). Those were mainly rural and urban lower classes without the required economic conditions. But also men during their time of service, disabled people or couples with a large age difference were often forbidden to marry (Müller, 2003, p.93). They therefore often lived together in unmarried cohabitation which led to a growing number of illegitimate children. However, these children were often legalized after a certain period of time (Kraus, 1979). Despite some exceptions, for example among the poorer classes, cohabitation and particularly non-marital childbearing has been strongly discriminated in most social strata in Europe until the middle of the 20th century - socially and legally. Cohabiting unions were outside the law or even penalized (Bradley, 2001, p.22). In former times, mothers with illegitimate children had to expect certain sanctions according to different periods of times and regions as well as depending on the social class they were belonging to. Nave-Herz (2004) assumes that the discrimination of non-marital births together with a late age of marriage in Northern and Western Europe has been a state-controlled prevention act against high population growth and thus against potential impoverishment of the population (Nave-Herz, 2004, p.82).

In France, marriage has been the most privileged and legally accepted form of partnership since the 19th century. Before, during and after the French Revolution from 1789 to 1793 and the introduction of revolutionary laws, family was viewed as belonging to the private sphere. Laws on divorce were even more liberal than the French law on divorce today. This changed after the introduction of the Napoleonic code in 1804, were one unique model of the family was promoted (a married couple and its children) and mothers with non-marital children became discriminated. In Napoleonic France, only the married family was considered to be a real family (Martin and Théry,

2001)[11]. Still, also in France, cohabitation has been very common in the working class in the 19th century as a form of a trial marriage. Such unions, the "concubinages", were legalized mostly not until the birth of a child or if the man accumulated enough fortune to maintain the family's living without the earnings of the woman (Gestrich, 2003, p.500). After the First World War, also the working classes established an overwhelming preference for marriage (Villeneuve-Gokalp, 1991, p.97).

Also in some regions of Germany, cohabiting unions among the working class were not unusual in former times and the number of non-marital births were high. Nonetheless, since the 16th century, cohabitation has been defined as a criminal delict in the German Empire. In all German territories, non-marital cohabitation remained punishable until 1973. Particularly the so-called "Kuppelei-Paragraph" (§180 StGB) which was introduced in 1876, suppressed these kind of unions. It stated that landlords or parents who allowed unmarried cohabitation in their flat, could be fined or even penalized with an imprisonment (Gestrich, 2003, p.510). Given the massive social changes in the late 1960s (changing sex morals, student unrest, women's movement), this paragraph was not conform to reality anymore. However, it has been abolished not until 1973. Rates of non–marital childbearing decreased during the beginning of the 20th century, together with an increase in marriage rates (Gestrich, 2003, p.508). These changes were accompanied by a moral campaign against cohabitations and unmarried motherhood as well as by stricter "concubinage laws" (Abrams, 1993). In the late 1960s, German sociologist René König discussed illegitimacy mainly as a result of social disorganization and explains the aversion against non-marital childbearing in most societies by the aggravation of the placement of children in the given kinship system (Koenig, 1969). In western Germany in the 1960s, beginning of 1970s, there have been secret private hospitals in which unmarried women from better off families could go to during their pregnancy. The legal discrimination of those women has been improved not earlier than 1970, when illegitimate children were considered to be related to their biological father with the respective legal consequences, for example regarding inheritance (Nave-Herz, 2004, p.82f) After the Second World War, some couples chose cohabiting unions after a divorce or the death of their part-

[11]Napolon is alleged to have said that: "*Les concubins ignorent la loi, la loi ignore les concubins* (Godard, 2007, p.311).

ner because they did not want to lose their alimony or widow's pension by remarriage, the so-called "uncle marriages" (Nave-Herz, 2000, p.264).

Roughly speaking, cohabitation and non-marital parenthood have a long tradition in both countries, especially among the working class. Reasons for not marrying were different than nowadays, restrictive marriage laws and not individual preferences were crucial when people started living together. Marriage became common and possible for all social levels in the beginning of the 20th century. In Germany cohabitation has been penalized until the beginning of the 1970s, before it has been socially deprecated. Also in France, cohabitation has been common in certain periods of time and for certain subgroups of the population. Since World War I it has become more rarely but it has not been penalized as strong and long as in Germany. In both countries, marriage has been the most privileged form of partnership during the last centuries. Differences in marriage patterns have mainly been occurred after the Second World War. Nowadays, cohabitation has become the most frequent type of partnership at first union in western Germany and France. Almost 90% of all unions in France and 75% in western Germany started as non-marital union (Le Goff, 2002, p.596). However, if we look at cohabitation from a life course perspective, we find different meanings of cohabitation in both countries.

France

Starting in the late 1980s, there has been a large amount of research on that topic for France. During the 1980s, Leridon (1990) has shown that the majority of cohabiting couples in France had not thought about marriage at the beginning of their life together. Still most of the couples did not refuse to marry at a later point in time. However, already in the mid-1980s, cohabitation in France was no longer a mere prelude to marriage but a type of union in its own right. Though marriage plans were often linked to plans to raise a family, marriage was not viewed as a precondition for children (Leridon and Villeneuve-Gokalp, 1988). A survey of 1985 revealed that most of the decline in marriage rates has been compensated by an increase in non-marital unions, except for the 21-24 years group which can be explained by a later age at leaving the parental home (Leridon and Villeneuve-Gokalp,

1988). Using that survey, Villeneuve-Gokalp (1991) found for France that cohabitation has not spread at the same pace in all social groups. The emergence of unmarried cohabitation was first of all visible in the university and related spheres. It spread from students, starting at the end of the 1960s, to the upper classes (not until the early 1970s), then gradually working down the social ladder: manual workers were not affected until 1977. However, she also mentions that cohabitation already existed in some parts of the working class before that process of diffusion (Villeneuve-Gokalp, 1991, p.110). She also found that there were different forms of consensual unions and classified cohabitants into five groups of cohabiting unions according to different attitudes, durations of cohabitation and existence of children: "prelude to marriage", "trial marriage", "temporary union", "stable union without commitment" and "free union". She also discussed the development of the different types of unions over time, showing that for half of the couples who lived in non-marital unions between 1970 and 1980, cohabitation was a prelude, or a trial for marriage. Free unions represented only a minority behavior, whereas cohabitation in the form of stable union without commitment has been growing since the end of the 1970s in France. Toulemon (1995) analyzed the duration of cohabiting unions for French couples: In the 1970s cohabitations were not lasting ones, they could easily be ended, by breaking up or getting married. Since 1980 cohabitations became a more lasting lifestyle, couples remain unmarried for longer and longer and pregnancies no longer brought on a marriage before the child was born. Le Goff (2002) states that in the majority of cases, cohabitation appears to be a transitory state during the life course before an eventual marriage but mentions also the large increase of women living in consensual unions for younger French cohorts, especially for women up to age 25. In their comparative study on the meaning of cohabitation in 17 countries, using the Family and Fertility Survey, Heuveline and Timberlake (2004) distinguished countries where cohabitation remained a *marginal phenomenon*, those where it was a *prelude to marriage* (i.e., relatively short duration and low frequency of childbearing), a *stage in the marriage process* (i.e., usually leading to marriage, often after the birth of a child), an *alternative to being single* (i.e., of relatively short duration and frequently ending in separation rather than marriage), an *alternative to marriage* (i.e., of longer duration and frequently involving childbearing), and a status *indistinguishable from marriage*. They

classified France as a country where cohabitation can be viewed as *alternative to marriage*, while western Germany belonged to the category in which cohabitation typically leads to marriage (*stage in marriage process*).

Germany

In western Germany, cohabitation is mostly restricted to young adulthood, decreasing after age 30 and presenting rather a prelude than a permanent alternative to marriage (Klein et al., 2002). A longitudinal study of Vaskovics and Rupp (1995) analyzed around 900 cohabiting couples over some years and reasoned that only a minority of those couples viewed cohabitation as a real alternative to marriage. After four years, almost half of them got married, every fourth cohabitation got separated and 36% got children or were pregnant. Nine out of ten parents got married and almost only childless couples got separated (Vaskovics and Rupp, 1995, p.185). Lauterbach (1999) who analyzed the German Family and Fertility Survey of 1992 came to the conclusion that premarital cohabitation became the normal case, not only for special subgroups but for all younger people. Highly educated people prefer living in cohabiting unions, but the difference to other levels of education became only marginal. This kind of living arrangement is of particular frequency for people under age 30. Cohabitation became a separate stage of life, however, still understood as prelude to marriage. Heuveline and Timberlake (2004) obtain the same results. They find cohabitation in Germany to be a stage in the marriage process. Referring to the definitions of Villeneuve-Gokalp (1991), cohabitation in the early 1990s in western Germany was a kind of "trial marriage" in which the partnership is tested before one gets married. However, the birth of a child still constitutes one of the main reasons to institutionalize the partnership by marriage in western Germany (Lauterbach, 1999, p.303-304). Marriage and family foundation are still closely interlinked. Surprisingly less changes in this pattern of "child–centered marriages" occurred over cohorts: around two quarter of women born in 1965 as well as in 1970 have been married at birth of their first child (Kreyenfeld and Konietzka, 2005). For non–married couples with at least one highly educated partner, Wirth (2007) detected a 15 times higher risk of being childless than for comparable marital unions. The author also concludes that in western Germany the vast majority of

consensual unions are childless unions (Wirth, 2007, p.189).

Nowadays, consensual unions in France seem to become more an alternative to marriage than cohabiting unions in western Germany. The decrease in the number of marriages in the 1970s and 1980s was compensated by an increase in cohabitation. Cohabitation is no longer a specific behavior of the younger generation and the birth of a child no sufficient reason to get married (Martin, 2004, p.5-6). In western Germany, the birth of a child leads more often to marriage than in France. However, a real comparative study about that is still missing.

4.3 Family Policies

4.3.1 History

To understand the current system of social benefits, family allowances and public child care in both countries, a view into the history of family policies is quite useful. It explains the different characteristics of both systems, particularly in regard to child care. Families with children in which both partner want or need to be employed need sufficient child care provision. Without institutional child care, employment has to be limited or even forgone to invest time into the care of children. Next to other family policies, a wide supply of child care enables parents to invest time into gainful employment. Regarding the argument of the importance of female economic independence, a wide supply of child care is a precondition for parents to invest time into gainful employment. The main profiteers are women since they still provide the majority of time for caring and uprearing of children within the family.

France

There are four main factors which help to understand the development of family policies as they exist in France today.

First of all, it is important to understand the republican concept of universalism. Universalism in this case means gender indifference particularly in public, while gender differences are supposed to belong to private space. Motherhood is not discussed as an aspect of difference between the sexes

but as a normal stage of life in which mothers should interrupt their professional and social life as short as possible. Instead of exclusive mother-child-relationships with pronunciation of the private sphere, French women can use daily childcare much easier and earlier than their western German counterparts.

Secondly, the French laicism does not refer to any religious concepts and therefore does not predefine women's role. Instead, the state is supposed to be the true expert when it comes to education and family policy. Due to historical reasons, the state in France has a strong legitimation to intervene in family matters as well as in child care arrangements. Publicly run day care was viewed as a weapon with which to combat infant mortality and thereby promote the well-being of the population (Morgan, 2003). Besides, to repel the influence of the catholic church on family and education, the French government took over control of the educational system in late 19th century. In France, children are seen as "future of the nation" (Letablier, 2002, p.271) and thus the state is responsible for their well-being, health, and education. One reason for the state support of employed mothers is the aim for equal opportunities for all children who shall not be dependent from the income of their parents. Another reason is founded in different moral concepts between state and church. The church lobbied for catholic and conservative values whereas the state advocated republican values - the principles of *égalité et liberté*. To prevent that women have to abstain from getting children when they want to be economically active, the state supports them by providing adequate child care (Letablier, 2002). But also pronatalist goals are associated with public child care by strengthen the nation by more and more children. However, this goal has been quite relevant in former times but became less important in the last years. As a matter of course, French women can give parts of their childcare tasks to the state, without getting a bad reputation (Veil, 2005, p.90-93). Still, the French culture of child care is not explicitly linked to a policy of gender equity as in Scandinavia[12]. Family–friendly measures were not designed by French politicians with a feminist goal but mainly for demographic reasons.

[12]Care work is either delegated to the state or to other less privileged women or migrants. In addition, women are still responsible for the majority of domestic work: In France, women in gainful employment spend more than twice as much time per week on domestic work (4 hours and 15 minutes a day) than French men do (2 hours and 10 minutes a day) (Europäische Kommission, 2000).

Therefore, the third factor concerns the long tradition of population policy in France and a long-standing awareness of problems caused by a shrinking population. France experienced a rapid drop in fertility very early - already in the 19th century birth rates were falling. Women born in France in the middle of the 19th century gave birth to averaged 3,4 children. In Germany this number was up to 5,4 around 1880 and therewith higher than the European average (Festy, 1979, p.49). Since then family policy in France has always had strong pro-natalistic elements. Until now this is noticeable in the promotion of families with at least three children and the relative neglect of one-child-families (Schultheis, 1999, p.92). Especially in the aftermath of the Second World War the French model of family policy could be defined as a pro–family / pro–natalist model. A shift appeared with the advent of the Fifth Republic in 1958 with a political discourse that was more favourable to women's work (Revillard, 2006).

The last aspect concerns voluntary benefits from employers. Family benefits, such as child allowance, the support of proprietary, or the work-free family-Sunday can also be attributed to the charity of catholic enterprizes during the 19th century (Spieß, 2004, p.51). At the end of the 19th century, compensation funds were founded to compensate for the burdens of wage-earners that resulted from rearing and caring of children. After the employees demanded these initially voluntary family benefits as part of their working contract, they became part of the regular wage and under increasing state-exercised control. A large proportion of the employees had to join so-called family-compensation-fonds in 1932. Due to the ongoing decline of population, the *Code de la Famille* standardized and regulated the hitherto non-governmental family policy in the year 1939. Today, family benefits are organized and financed through the *Caisse Nationale d'Allocation Familiale* (CNAF – the bureaus in charge of distributing family benefits). The CNAF self-finances 1/3 through governmental means and 2/3 through employee duties and tobacco-tax-proceeds (Spieß, 2004).

Germany

Germany officially does not exercise a specific population policy, even though there is a clear tendency of removing the taboo from this topic. Childbearing, childrearing and child caring has long been the private busi-

ness of the family, interference of the state was rejected. This can be historically explained by the abuse of it during the times of National Socialism with its strong emphasis on pro-natalist policies[13]. During that era, marriage has been functionalized, women were crowded out of public life, their role was reduced to that of the parturient and mother. After 1945, the catholic-conservative government of Konrad Adenauer wanted to differentiate itself from the family policy of the National Socialists by trying to interfere as little as possible in family matters. However, the social reformers of the 1950s came for the most part from a catholic environment and placed their emphasis on ethical values from the catholic social doctrine that supported the continuity of the male breadwinner and ideologically enhanced the role model of the woman as mother and housewife (Veil, 2005, p.91-92). Until 1953 husbands could demand a divorce if the woman wanted to work outside the home. From 1957 onwards women were allowed to be employed but only if their employment was compatible with their duties in marriage and family (§1359, BGB 1957). However, also French women were not allowed to be employed without their husbands permission until 1965 (INSEE, 2008a). On the first of July 1977, a comprehensive reform of marriage and family law came into force in Germany. The ideal of the *Hausfrauenehe* (a marriage where the woman is supposed to be the housewife) has been abandoned and was replaced by the model of a cooperative partnership (§1356 and §1360, BGB 1977). In France, a very similar law has been introduced in 1970. It also abandoned the ideal of the male head of the household and entitled both spouses to be responsible for the family. Besides, it replaced paternal authority on the children with parental care (INSEE, 2008a). Besides, before 1976 being divorced has been considered as "stigma" in West Germany. Changes in divorce law in the same year replaced the principle of fault at divorce by a principle of marriage breakdown which undermined the discrimination of living arrangements outside of marriage and contributed to their social acceptance (Lauterbach, 1999).

In Germany the principle of subsidiarity applies. It asks families to arrange their affairs on their own, without state-run interference. Women are

[13] Just to name two examples from this time: 1. Mothers with at least four children were granted the so-called *Mutterkreuz.*, 2. Married couples were granted a public loan. The sum of repayment got smaller with every birth. The loan was only granted if women gave up employment and were able to certify that they were "suitable" for marriage (*Ehetauglichkeitszeugnis*).

supposed to rely on the provision of their husbands to relieve the welfare state financially. In case of further need, various transfer benefits compensate for deficits in the individual efficiency of families (Konietzka and Kreyenfeld, 2005). The emphasis on the importance of inner-familial privacy derives also from a deliberate separation from the socialist regime of the German Democratic Republic (GDR). In postwar-Germany the idea of dual-earner households has been strongly disapproved since it was connected to a system perceived as rule of injustice: non-parental supervision, particularly for children younger than three years, was connected to the socialist system of the GDR. Heritage of this delimitation process has been the undersupply of childcare in western Germany and the related low labor force participation of mothers with small children. First child care institutions have been established in Germany during the 19th century. To prevent "moral failure", the catholic church looked after children of employed mothers. End of the 19th, beginning of the 20th century, the state took over control of some child care institutions for the first time by supporting charitable societies. Since 1922, responsibility for institutional child care has been mainly put on local authorities. The principle of subsidiarity implied that the municipalities had to prefer free agencies to public agencies (Kreyenfeld et al., 2002, p.203). State intervention should occur only in case the free agencies fail in doing their job. In post-war western Germany, the general principle of a two-earner-household - and connected to that the extension of public child care - has been deprecated. Since the 1960s the focus of child care institutions has been on education and socialization and not on supporting the compatibility of work and family. As a result the *Kindergarten* - child care for children between three and six years of age - established only as half-day institution (Kreyenfeld and Hank, 2000). Education and care for children is mainly a matter of the family, the state is not supposed to intervene. Above all small children should be supervised by their mother. There have been heavy controversies in the beginning of the 1980s on potential harms of the mental development of children who were not supervised by their mothers but by day care institutions (Bundesregierung, 1995, p.188).

4.3.2 Child care

Regarding child care, the differences between both countries are especially pronounced. In this section we discuss and compare the varieties in child

care facilities in France and western Germany. But also leave regulations, taxation and the regulatory framework shape conditions that influence decisions for or against a special type of union. The subsequent sections therefore comment on these differences more precisely.

France

The origins of day care reflects the early state-intervention in education. Preschools, the *écoles maternelles*, have been integrated into the educational system already in 1881. There, children between three (sometimes even two) and six years of age are prepared for school. The teaching staff has been equated with primary school teachers as early as 1921 (Oberhuemer and Ulich, 1997, p.118). Currently almost all children in the age between three (sometimes two) and six years attend preschool, even though it is not compulsory. Most of them are looked after between 8.30 a.m. and 4.30 p.m., some preschools organize care after that time. Most of the *écoles maternelles* are state-run and free of charge. Parents have to pay a small amount for lunch and for care after the official closing times.

Child care for under three-year-old children is very diverse. The number of available places in crèches has been increasing since the 1970s from less than 50,000 to almost 200,000 in 1995 (Morgan, 2002). A place in a crèche has to be paid by the parents, however, the level is dependent on the parents income and the number of children. 25 per cent of charge is tax-deductable (Becker, 2000, p.226f.). Next to public services, there are also other forms of child care arrangements in France. Since the 1990s, domestic child care arrangements have been strongly supported by the state through special allowances and tax reductions. Costs for registered day mothers (*assistante maternelle agree* - AMA) can be attenuated by certain government aids, such as AFEAMA (*aide la famille pour l'emploi d'une assistance maternelle*). AFEAMA is available for dual-earner-parents who employ a registered day mother for their child or their children under six years of age. Parents can also engage a nanny (*nourrice*) who also contributes to household work. Also in this case they can apply for governmental aid in terms of the *allocation de garde d'enfant domicile* (AGED) and through tax reductions (Becker, 2000, p.231-232). Particularly families with a higher income benefit from these arrangements whereas low-wage-families prefer the cheaper *créche* or

stay at home.

A representative survey conducted in 2002 asked parents with children aged between 4 months and 2 1/2 years about the main form of child care for their children[14]. 50 per cent of the children are mainly looked after by their parents at home. 10 per cent are also at home but their parents either work from home, work only part-time or have working conditions that allow them to take care of their child during work. In total 40 per cent of the children are not looked after by their mother or father. Out of those, 17 per cent are cared for by an registered day mother (*assistante maternelle agrée*), 10 per cent attend *crèche*, 6 per cent are looked after by their grandparents, 3,5 per cent by a non-registered day mother (*assistante maternelle non déclarée*) and 2,5 per cent by other members of their family or other forms of care (Blanpain, 2006a). However, a large proportion of the two year old children (35 per cent) already attend the *école maternelle*. At age three, already 97 per cent are enrolled in pre-school, 70 per cent of these children in full-time care (Blanpain, 2006b).

Children in compulsory education attend school all day in France. School starts at 8 a.m. and usually finishes at 4.30 p.m., interrupted only by a lunch break which has to be partially co-financed by the parents. Afterwards the children can be looked after in the pre- or primary school. Wednesdays is no school, forcing parents to search for alternative child care arrangements, working part-time or using the 35-hours-week for taking a day off.

Since 2004 there have been some remarkable alterations in French family policy. Benefits at birth or adoption and support of child care for small children have been collapsed and replaced by a new benefit system called PAJE *Prestation d'accueil jeune enfant*. The basic allowance includes a birth bonus of 863,79 € and a monthly income-dependent payment of 172,77 € until the third birthday of the child (*allocation de base*)[15]. The criteria for requirement has been released so that now 90% instead of 80% of all entitled families are covered. There will also be additional benefits in case of a career break, depending on the duration of a former employment and the birth order (see section 3.3.3 on parental leave). The parent which is

[14] If parents care for their child 30 hours out of 48 hours, they are classified as the major carers.

[15] Last update: January 2008. The amounts are adjusted annually (Caisse d'Allocations Familiales, 2008).

employed has the right to get benefits for the free choice of child care, which means complete or partly absorption of the social security contribution for a day mother resp. domestic child care as well as part of the fee for such a person, depending on the family income. This will be paid up to the child's sixth birthday, however, the level decreases until the child completes its third year of age. For one child between zero and three years of age between 162,20 € and 379,49 € are paid, depending on the net income. These additional benefits are meant to enable parents with low or medium income to choose freely the kind of child care. At the same time they are meant to be motivated for returning into paid employment (MISSOC, 2005). However, particularly low-income families often decide for a crèche as the cheapest form of child care. In this case they do not benefit from the reform.

Germany

In western Germany, external child care is socially little accepted. This reflects in low provision rates: In western Germany, under 5 per cent of the under-3-year-old had a place in the nursery (*Kinderkrippe*) in 2002 (Statistisches Bundesamt, 2004), in 2006 this number increased but still remained at a low level of 6,8 per cent (Deutsches Jugendinstitut e.V., 2008)[16]. Regarding the actual demand, around 20 per cent would need a place (Sell, 2002). State-supported day mothers care for only 1,2 per cent of all children in this age group, at least twice as much are supervised by private organized childminders (Deutsches Jugendinstitut e.V., 2008). However, there are great differences between the single federal states (*Bundesländer*): the range varies from a rate of 5,1 per cent in Lower Saxony, to 10,2 per cent in Saarland, and to 21,1 per cent in Hamburg.

For children between three and six years of age child care coverage is much higher (86,1 per cent), however, often entailing only a few hours of care per day without lunch and care in the afternoon. A legislation introduced in 1996 requires of local communities to offer day care for children between three and six years of age, but only one fifth of all Kindergarten places offer full-time care (Hank et al., 2003). This makes even a part-time job for western German mothers hard to realize. In addition, care in the

[16]In 2006 the definition of child care changed: from measuring the number of places available for 100 children (place-child-relation) to a rate that measures the percentage of children in child care (a number that is internationally better comparable).

afternoon for older children is an exception. Children in compulsory education attend *Halbtagsschulen*, which usually finish between 1 and 2 o'clock p.m. Only 6% of all western German school-aged children have a place in the so-called *Horte* in the afternoon, the others are looked after by their parents, grandparents or private initiatives (Kreyenfeld et al., 2002).

Besides institutional day care for children, there exist also "private" arrangements, such as day mothers or nannies. However, these forms of care are quite unusual. Private facilities and arrangements are not supported and cost more fees than state-supported day care. Only some parents are willing and have the financial ability to bear the costs (Kreyenfeld and Hank, 2000, p.325). Less than five percent of all parents use paid persons like nannies as an additional form of child care (Hank et al., 2003, p.11). Unpaid support by relatives or friends is still the most important help in everyday life of working mothers and fathers. Despite the changes in family structure, most of the women still rely on the family as the most important source of support, especially the role of the grandmothers remains important. Assuming that they will work longer in the next years, also this form of child care will lose ground (Hank et al., 2003, p.12).

In the last years, state-opinion towards public child caring changed - the state aims nowadays at enlarging day care arrangements. Particularly child care for children younger than three years is supposed to be extended. Parallel, parental leave got shortened and better paid (see section 3.3.3). These measures are aimed at employed parents - to make work and family life more compatible.

The differences in child care provision in both countries are not only the result of different family policies but also of different popular attitudes towards caring for small children. The majority of western German women are convinced that a child under three years of age mainly needs its mother to grow up emotionally stable and that any separation during that period is traumatic for the child (Fagnani, 2002). French mothers, by contrast, do not think that female employment is harmful to young children: Only 16% do not wish to take up a job when their children are below school age; this compares to 34% in western Germany (Fagnani, 2002). In France, a small child does not seem to be a reason to interrupt market work: 80% of the mothers with one child below age three are employed, the proportion decreases when

they have to take care of three or more small children. In western Germany, the employment rate for mothers with one child below age three is 25% lower than in France but increases when the child can attend the Kindergarten. However, it never reaches the level of French mothers (EUROSTAT, 2002). There is a great undersupply of child care institutions from the employed mother's perspective in western Germany, particularly concerning opening hours and the possibility of all-day-care for children under three, but also under six years of age. But also the situation of care for schoolchildren in the afternoon can hardly be reconciled with (maternal) employment.

4.3.3 Leave regulations

Maternity leave serves as protection for pregnant women and the new born and enables women to return to their job after the birth of a child. Parental leave is geared towards enabling parents to keep their salary and job while caring for young children. Especially in connection with flexible working hours and on-the- job-training during parental leave, this gives women and men the opportunity to care for their small children without loosing contact to their jobs. But, parental leave taken for a longer time, particularly for several years, can also loosen the connection to the labor market and lead to severe career breaks.

France

French women can take 16 weeks maternity leave (*congé de maternité*), six weeks before and ten weeks after delivery. It increases up to 26 weeks at multiple births or at birth of the third and each subsequent child. It constitutes a period during which protection against dismissal is specially increased, with the guaranteed right to return to the same job. Eligible persons for paid maternity leave (*allocation de maternité*) have to exhibit a previous insurance time of at least ten months instead of three months as is the case in Germany. Since 1996 it amounts to 100% of the former net wage, before it has been only 84%.

France introduced parental leave in 1977. It entitled parents to unpaid leave of 24 months. In 1987, the duration of leave was extended until the childs third birthday. Qualified for leave are parents with at least one child. The majority of persons in France using parental leave are female. Parents

are able to work part-time and likewise can take time off together. Since 2001, fathers are entitled to take two-weeks of paternity leave, which is fully compensated. Child-rearing benefit (*allocation parentale d èducation* – APE) was introduced in 1985 and was only paid to parents with at least three children. This clearly reveals the pro-natalistic aim behind this policy. Since 1994 it is paid from the second child onwards. Parents with one child can get a very low income-dependent financial support in case of need (*allocation pour jeune enfant* – APJE) until the child turns three years old. Due to missing monetary incentives only a minority of parents makes use of this allowance since the opportunity costs of a career break are very high after the birth of the first child (Becker, 2000, p.215). APE is dependent on work experience previous to parental leave - the person who wishes to take leave must have been in gainful employment for at least two years within the five years preceding second birth (10 years before the third birth). It is paid independently of prior income (485 € per month at complete exit from work). As a result, the majority of recipients are women. This is because they earn less money on average than men do. Especially women with low qualifications and relatively low earnings or unemployed women do take parental leave in France: After the introduction of APE for the second child in 1994, the labor force participation rate of mothers with a second child aged between six and 18 months old decreased during one year for about 26%. The introduction of the revised parental leave lead to a withdrawal of women from the labor market which was political desired to reduce the relatively high female unemployment for at least a short time (Reuter, 2002a, p.19).

The new benefit system PAJE collapsed APJE and APE as well as benefits for day mothers and domestics and became valid in January 2004. The aim of this reform was to leave the choice of child care to the parents. In addition to the basic allowance, parents can choose from two additional benefits: either the benefit for the free choice of child care (*complément de libre choix du mode de garde*) or the benefit for the free choice of activity (*complément de libre choix d'activité*). The latter replaces the former parental leave. Now parents who care for their children at home get 363,27 € per month assuming that they get *allocation de base* and do not work part-time. For those who do not get the *allocation de base*, the amount increases up to 536,03 €. The amount gets lower in case of part-time work. Pre-condition is a

two-year duration of employment in the two years before the birth of the first child, a two-year duration of employment in the four years before the birth of the second child, and a two-year duration of employment in the five years before the birth of the third child and subsequent children. The allowance is valid for all parents, only the duration of covering differs: six months for one-child-families and three years for parents with at least two children (Caisse d'Allocations Familiales, 2008).

Germany

Maternal leave is eligible for all women in gainful employment or for those in vocational training six weeks before and eight weeks after birth of a child (twelve weeks at multiple births). Protection against dismissal exists during pregnancy and four months after delivery. Eligible persons for paid maternity leave have to exhibit a previous insurance time of at least three months or must be independently covered by compulsory health insurance. The level conforms with the approximate wage of the last three months.

In 1986 parents in western Germany were entitled to parental leave until the child reached ten months of age. Leave was extended to twelve months in 1988, 15 months in 1989, 18 months in 1990, and finally in 1992 to the childs third birthday (Gauthier and Bortnik, 2001). Until 2006, parents received childrearing benefit during most of that time (*Erziehungsgeld*), which was income-related and at most 307 € per month (for two years) or 460 € per month (for one year)(Bundesregierung, 2002). It was not intended to be an income replacement but served to acknowledge childrearing. Under parental leave regulations, western German parents can work part-time (until 2001 a maximum of 19 hours a week, 30 hours since 2001) and both can take parental leave at the same time[17]. Nevertheless, only about two per cent of all fathers entitled took this option. Despite the relatively low financial compensation, claim for parental leave is high. One reason is the traditional image of motherhood and childrearing – mainly mothers are assumed to be responsible for their small children. Further reasons are the insufficient supply of day care places for children younger than three years, as discussed in detail in section 3.3.2, but also a shortage of jobs in some regions.

[17]Not until 2001 Germany adopted the EU Directive of 1995. Before, employees whose partners were not in gainful employment, were not allowed to take parental leave (Falkner et al., 2002, p.13).

Since 2007, a new form of payment during parental leave has been introduced, the so-called *Elterngeld*. It replaces the old child-rearing allowance. Parenting benefit is paid for all children born on or after January 1, 2007. For a period of twelve months parents receive 67 percent of the current net income of the parent that stays home with the child, up to a maximum of 1,800 € a month. Two additional months are paid for the other partner, to give fathers, in particular, an incentive to take parental leave. Parents can also draw parenting benefit at the same time. In that case the period of eligibility is shortened, for instance to seven months for each of the partners. The eligibility period for parenting benefit can also be doubled to twenty-four or twenty-eight months, in which case the monthly payments would be cut in half. *Elterngeld* increases for low-income earners, at the birth of a sibling or at multiple births. All child-rearing parents will be eligible to receive a minimum parenting benefit of 300 €, even if they are not employed prior to the birth of the child or if they earned less than 300 € (Bundesregierung, 2006). Current numbers show a strong increase in the take-up rate of parental leave for fathers: in 2007 10,5 per cent of all entitled fathers took parental leave compared to 3,2 per cent in 2005 (Statistisches Bundesamt, 2007, 2008b). However, for our study period, the *Elterngeld* as well as PAJE in France do not have any validity.

4.3.4 Taxation

Monetary benefits for families are a means of reducing the occurring costs of children. They can be paid directly, for example as child benefits, or as tax reductions.

France

Until 2004, child benefit (*allocations familiales*) has been paid only for second and more children. It was paid until the 20th birthday of the child, provided that his or her income did not exceed a particular limit. The amount increased with the number and age of children. Families with one child only got certain tax reductions. Needy families could also get *allocation pour jeune enfant* (APJE). Since 2004 also parents with only one child get a basic allowance for the first three years (see section 3.3.2 and 3.3.3). In France, child care expenditures outside home directly reduce the tax li-

ability of households, provided the parents work at least half-time. The corresponding non-refundable tax credit is worth 25 per cent of the annual child care expenditures (Choné et al., 2003). In France, only married couples can declare their income jointly (for recent changes see section 3.3.5), which is mostly advantageous for them. A couple filing joint income taxes is likely to pay less tax, particularly if one partner earns substantially more than the other (see also tax regulations in Germany). However, French couples with children benefit from the traditional system of family splitting (*quotient familiale*): The tax burden is reduced in relation to the number of children and it does not matter whether one partner is employed full- or part-time (Dingeldey, 2000). Tax relief due to the system of family splitting is especially high for high-income households, particularly for those with at least three children. Before 1996, cohabiting parents could benefit from taxation allowances likewise lone parents. This fiscal advantage was removed in 1996 (the *Courson amendment*). The change in the tax laws encouraged couples with children to legalize their union and thereby pay less tax (Prioux, 2003b). As a consequence, marriage rates of cohabiting parents increased strongly between 1996 and 1997 (INSEE, 2002, p.13).

Germany

In Germany, child benefit is paid monthly from the first child onwards: since January 2010 this means 184 € for the first child, 190 € for the third child and 215 € starting with the fourth child[18]. It is paid until the child reaches age 18 or when it is still in education or vocational training (until age the age of 27) provided that his or her income does not exceed a particular limit, too. German parents, especially those with a higher income, might also benefit from the so-called *Kinderfreibetrag* - this tax allowance is charged against the child benefit drawn and is paid instead of child benefit.

Married couples are supported through special tax reliefs, irrespective of the existence or number of children as is the case in France. In Germany the rule of conjugal splitting applies: thereby husband and wife can be put as if each of them would earn half of the combined income and is taxable as single person according to the basic tariff (the so-called *Ehegatten-Splitting*). The splitting advantage is maximum if only one of the partners has income and

[18] Before it was 154 € from the first child and 176 € starting with the fourth child

equals zero or is only minor in case both incomes are approximately alike. So married couples receive the largest tax reliefs if they earn differently or if one of the partners is non-, minor or part-time employed. This measure provides couples with an incentive to get married, particularly when one of the partners is permanently not working (or employed part–time) and the other is working full–time. If both of them are full-time employed, the financial and actuarial advantages of a marriage are only minor (Konietzka and Kreyenfeld, 2005).

4.3.5 Regulatory framework

The strong increase in the proportion of cohabiting unions and children born outside of marriage caused policy makers and legislators to improve the legal situation of those unions. The following section contains an overview of changes in family law, but also of the general situation of marital and non-marital unions in the tax and social security system.

France

Despite very high rates of cohabitation in French society, also in France only a married couple is considered to be a *real couple*. Cohabitants are treated different than married people in diverse ways.

Concerning civil and social law, cohabitation is recognized, but usually in order to remove or diminish allowances for single people. Entering cohabitation leads to the loss of allowance of lone parents (API), the allowance for family support (ASF), and the allowance for widowhood. It reduces others like minimum income benefit (RMI) or housing allowances. There are nor rights of mutual inheritance in case of the death of the partner[19]. There is also no claim for alimony for the partner whose financial situation is damaged by the end of the partnership as is the case in marriage. Also, cohabitants cannot receive allowance in case of widowhood (Martin and Théry, 2001, p.142-143). Until 1999, cohabitants were not seen as a couple but as strangers as regards civil law. There have been possibilities on local level to register a heterosexual partnership (*concubinage*) which included certain

[19]The free voluntary legacy which might be made to the cohabiting partner is limited by the *reserve* for children and ascendants: 60 per cent for amounts over 10,000 francs (1525 Euro)(Martin and Théry, 2001, p.142).

benefits at renting a flat, in the social insurance and tax system, as well as fare reductions. Besides, the protection of the deserted partner was quite advanced. The hiring contract could be prolonged after the death of one partner and there has been the possibility of co-insurance in the health insurance of one partner if the insurant committed oneself to pay alimony for the other. Furthermore, widows from cohabiting unions could apply for a kind of funeral benefit (Matthias-Bleck, 2006, p.221).

The most important reform, however, has been the introduction of the *Pacte Civil de Solidarité* (PACS) in 1999. It is open to heterosexual and same-sex couples and established as the basis of legal policy on cohabitation. Whereas marriages are conducted in Town Halls, PACS are recorded by the Clerk of the Court of First Instance (*tribunal d'instance*) (Godard, 2007). Precondition is a *vie de couple* - partners have to live together as a couple. Partners of such contract are obligated to mutual personal and material assistance which includes mutual assistance regarding maintenance, expenses for joint domicile, and any outstanding debts[20]. If one of the partners is not in the social security system (health insurance, maternity benefit, funeral benefit), he can be co-insured by his/her partner[21]. After three years of living together the couple can be jointly assessed for taxation. This time has been shortened to the same year a PACS has been recorded in 2005. State employees can apply for a job transfer to continue or remain living together with their partner. In case of dissolution of a PACS, divorce provisions do not apply nor is judicial separation necessary. If the couple wants to get separated again they have to hand in a joint written statement at the office of the local court where they registered their PACS which ends the contract. A unilateral cancellation is possible, in this case the PACS ends three months after delivery of the written declaration through the marshal or if one of the partners marries (Schreiber, 2001).

Even though the *Pacte Civil de Solidarité* consolidates and extends existing rights for non-marital relationships, it is still only a "shadow of marriage" (Bradley, 2001, p.37), since it does not experience such beneficial treatment as marriage. The law on the PACS makes no provision for financial provision or compensation, comparable to that available on divorce. Only married

[20] However, if one of the partner does not fulfill this obligation, law can not sanction the respective partner.

[21] This also applies for people living in *concubinage*.

couples can claim financial compensation at the end of the marriage. However, in French law, no right to pension rights adjustment for ex-spouses exists (in Germany *Versorgungsausgleich*). Before 2004, claim to maintenance was considered when divorce was due to irreconcilable differences (*divorce pour rupture de la vie commune*) and marriage was legally separated after six years of living separately or if one of the spouses has been mentally sick for at least six years. From 2004 onwards, the spouse who becomes disadvantaged due to divorce, can apply for a flat financial compensation (*prestation compensatoire*) in the form of monetary compensation or instalments (Gergen, 2007). PACS does not know such a compensation. There is no right of mutual inheritance and no claim to widow's pension. Tax concessions apply only after a qualifying period (Bradley, 2001, p.33-34). PACS-partner cannot adopt children but they are allowed to use in-vitro-fertilization: marriage partners or couples who live at least two years together are permitted to in-vitro-fertilization.

So why do couples who could marry (adults of different sex) should choose to sign a PACS instead? It might be the simpler procedure of dissolution compared to married people, no financial compensation obligations after dissolution, the possibility of getting priority in job transfers, or the more favorable tax system than for single persons. It combines the official recognition of a relationship with certain rights and protections with the ease of dissolution (Godard, 2007, p.315). More and more people make use of this arrangement: From 1999 to the end of 2007 more than 385.000 PACS have been declared. The proportion of same-sex couples became minor: it decreased from 25% in 2002 to 6% in 2008 (INSEE, 2009).

The situation of children from cohabiting parents presents itself much better. During the *20 Glorieuses* (1945-65), children born outside of marriage were strongly stigmatized in France (Martin and Théry, 2001, p.137). This changed in the beginning of the 1970s. In 1972, illegitimate children were granted a near-identical status, provided they were recognized by their parents; but only the mother had the sole custody (Munoz-Perez and Prioux, 2000). They were allowed to inherit, even though children born from adultery received only half of the inheritance they would have had if they were legitimate. In 1987 and 1993, legislation allowed joint custody over illegitimate children when both parents recognized them. 1987 parents had to

acquire joint parental authority, from 1993 onwards joint parental authority became the principle for all parents. Still, parents had to prove that they were living together at the moment of the legal recognition which married parents had not to do. Nowadays, we find an almost complete assimilation of rights and duties for children, independently of the legal situation of their parents (Martin and Théry, 2001). Particularly the law on parental authority in 2002 had a great impact on the situation of children being born out of marriage. It entailed the possibility of shared custody and instituted paternal leave[22]. Nowadays almost 75% of those children are recognized by their father at birth, compared to 6% at the end of the 1960s. (Martin, 2004). Unmarried parenthood is almost assimilated to married parenthood.

Germany

In Germany, marriage is put under special protection of the state. Article 6 of the German Constitution says that "Marriage and the family shall enjoy the special protection of the state"[23]. Therefore a lot of state support is given especially to married couples. It is a German particularity that the term "marriage" and not just the family itself are mentioned in the constitution. This means also that marriage and family are favored in the German social security and taxation system. At the same time this preferential treatment of the institution marriage supports sex-role segregation.

Important marriage-related entitlements are the *Ehegattensplitting* (see also section 4.3.4 on page 70), the automatically co-insurance of married housewives by the health insurance of their husbands and spouses' considerations in the widow's pension scheme.

Recent changes in legislation have tried to solve some problems of non-marital partnerships, eg. concerning ownership structure of household articles, claim for compensation in case of building a house or take out a loan, law of succession, alimony etc., but they still distinguish cohabiting unions from the protected legal institution of marriage as it is defined in Article 6 GG (Matthias-Bleck, 2006, p.197). Regarding the take-over of a tenancy-agreement after the death of the partner, spouses and partners from

[22] 11 days paid leave covered by the social insurance system, or 18 days for multiple births, which can be taken during four months after child birth (Martin, 2004)

[23] "Ehe und Familie stehen unter dem besonderen Schutze der staatlichen Ordnung." (Article 6 of the German Constitution)

non-marital unions are treated equally since 2001. But they have no right to get tax reliefs; they can not make a joint will, even though they can each other appoint as heir[24]; they have no right to refuse to give evidence at court and they are not automatically informed or allowed to make decisions in case of a hospital stay of their partner.

Cohabiting unions are discriminated against marital unions in terms of privileges but are often treated equally regarding liabilities. There are no transfer payments that actually favor cohabiting unions. This is because non-marital unions are under constitutional law not allowed to be better off than marriages, for example with respect to the calculation of their claim of social benefits (for example unemployment benefit) or housing benefit. It is assumed that both partners provide themselves maintenance and therefore their earnings are added before their need for help is scrutinized. They are also not co-insured in the health insurance of one of their partners which might be for example a big problem in case of unemployment. Besides, married people often earn more than their single or cohabiting counterparts. Some employers, like the public service, give their married employees extra-pay. A 30-year old man - married, childless, works full-time, salary grade BAT IIa[25] - had a salary cost gross of 3310,08 Euro in the year 2004. The same person, only unmarried, had only 3203,18 Euro at his disposal.

The German system also differentiates explicitly between single and cohabiting parents. If the partner does not live in the same household, single parents get easier access towards transfer payments such as social benefit, housing allowance or child-rearing allowance (Konietzka and Kreyenfeld, 2005). While children of single mothers have priority in the attribution of day care slots, children of couples in cohabiting and marital unions are usually treated alike (Konietzka and Kreyenfeld, 2002).

Until the end of the 20th century, children born within non-marital relationships were clearly disadvantaged to those from marital unions. Father's rights in connection with illegitimate children were quite weak before changes in legislation which became effective in 1998. Before that, a father of a non-marital child had no parental authority. Until 1991 he had

[24]Children, parents and ex-spouses of the dead partner have a right to get a legal portion to the tune of half of the heritage.

[25]BAT was a special tariff system in the public service, it has been changed in the year 2005. Married people are not treated preferential anymore.

even no right to educate and care for the child (Le Goff, 2002). Reforms in legislation 1997[26] aimed at abolishing differences between conjugal and illegitimate children. They enabled unmarried parents of different sex to apply for the joint right of custody for their child, after having determined paternity. Before that time, the mother had the sole custody. However, if the mother refuses to share the joint right of custody with the father, he has no chance of getting parental authority. Besides, before an adoption the fathers agreement is necessary (Münch, 2000). Since 1998, non-marital children are treated equally regarding the law of succession. Children from unmarried cohabitation have the same claim of maintenance at separation of their parents as have children from marriage.

Non-married mothers are discriminated against married mothers, for example after separation. Recent changes in legislation improved the situation of children and unmarried mothers. Until now, a lone mother had a palimony until the child's fourth birthday in case of need. However, each spouse or ex-spouse had to be provided before she could claim maintenances. Maintenance can be claimed in case of child care or illness and the connected abandonment of employment. But also if the partner is not able to find an adequate occupation after the time of child rearing or if he or she wants to take up education that has been discontinued or even not started because of the marriage. A new law tries to equal non-married and married mothers in case of seperation/divorce (reform of the law on alimony). In the past, a legally divorced mother has been entitled to maintenance from her ex-husband until her child's 15th birthday. As from the 8th birthday she was expected to work at least part-time again. From January 2008 onwards this time is shortened until the youngest child is three years old. After this time she is expected to work again. The time for unmarried mothers is prolonged in case of hardship. Besides, children, independent of the marital status of their parents, are entitled to alimony in the first rank: divorced or current spouses are not treated coequal to children anymore but come second place.

4.3.6 Summary

The differences in the past led to different family policies and institutional structures in both countries. Pro-natalistic motivations, the French laicism

[26] Kindschaftsrechtsreformgesetz (KindRG), §§1626a ff. BGB

and the right of the state to intervene in family matters are one of the main reasons that children and maternal employment in France are more supported than in western Germany. There, the aftermath of the Second World War led to a withdrawal of the state and pronounced the gender-division of labor within the family.

Institutional child care in western Germany still serves the male-breadwinner-model and hinders the economic autonomy of mothers. The interruption of employment during parental leave often lasts three years or longer, child care arrangements for this age group are insufficient, and the social acceptance of parental leave is high. As a consequence, re-entry into the labor market often becomes difficult, mostly accompanied by part–time work (see also chapter 4.4.2 on page 86). The institution of "marriage" is strongly supported by the state. In western Germany, income taxation aims mainly at unburdening married couples with children with the side effect of supporting the traditional family and earner structure. Almost half of the married couples that benefit from the conjugal splitting[27] are composed of one-earner-couples. Marriage is clearly privileged against non-marital unions in almost all areas. This is a logical consequence from the superior standing of marriage in the German Basic Law. Besides, before 1998, the biological father of a child born outside of marriage had a very weak position provided by law. However, during the last ten years changes in law increasingly equated children from non-marital relationships with children born in marriage. Yet fathers of non–marital children are still discriminated against married fathers since the mother can refuse to allow joint custody over the common child.

In France, child care facilities are strongly supported by the state. Parental leave regulations and child-rearing benefits show a strong tendency towards labor force policies but also pro-natalist aims. Leave can only be taken in case of a certain period of employment before birth, the same applies for child-rearing benefits. On the one side, parents are therefore encouraged to be employed which is supported by a high number of day care places in France. On the other side, women should also have the right to stay at home and care for their children. Pro-natalist traits are clearly observable regarding the eligibility of *allocation parentale d èducation* APE - before 1994 benefits were paid only after the third birth, after 1994 also at second birth. But also incentives to drop out of the labor market can be

[27] Those with a joint taxable income of at most 50.000€.

identified: after the extension of APE in 1994, mothers' employment rates decreased, particularly for those with low qualifications or young and unemployed women. Thus the parental leave scheme in France on the one hand supports mothers' employment by offering paid benefits only after the second child, by requiring a longer period of employment before birth than in Germany and by offering part-time work during parental leave. On the other hand, particularly young and less qualified women are encouraged to drop out of the labor market. The reforms in 2004 intensified this ambivalence[28]. Labor force activity gained importance (Salles, 2006) but also the decision for withdrawing from the labor market has been made easier. Changes in legislation improved the situation of cohabiting couples. Even before the introduction of the PACS, couples in non-marital relationships (*concubinage*) have been entitled to certain rights other than single persons. After 1999, cohabiting partners were provided with even more rights and protections. In France it is irrelevant whether a child is born in or outside marriage, since all children are treated equally, regardless of their family background. The equal treatment of marital and non-marital children before the law has been more recently developed in France than in western Germany.

The two following tables summarize the rights and duties of married vs. cohabiting couples in both countries (tables 4.2 and 4.1). They show that non–married couples have more rights in France than in western Germany, however only if they registered their partnership, either as concubinage or as PACS. Advantages for married couples are equal to those in Germany: tax reliefs, co-insurance of non-employed partner, widows's pension scheme and a joint will. In Germany, however, the principle of postmarital solidarity is much stronger – alimony for one of the ex-spouses can stretch over many years. French family laws are characterized by a relatively weak protection of the ex-spouses upon divorce. Solidarity during marriage is very pronounced in France, upon divorce, the French law operates on a clean break basis

[28] Only previously employed parents can get PAJE, the conditions have even been tightened. For parents with several children, it is not possible anymore to pass from one period of leave to the other. Moreover, parents get benefits two months longer when they interrupt their leave time between the 18th and 30th month to return to employment again. Child care benefits have been upgraded and childrearing benefit for parents working part-time have been increased. Parental leave got expanded to one-child families. The introduction of a basic allowance for mothers equated employed and non-employed women. The state facilitates private child care, either trough the mother or through day mothers or nannies, with the aim of reducing public expenditure.

and compensates for marriage–related inequalities between the spouses by a once-and-for-all payment. It implies that both persons concerned, also the partner who has to care for children, should be able to independently finance themselves. Even though the breadwinner model within marriage is quite strong, upon divorce one cannot rely on this model (Bundesministerium für Familie, Senioren, Frauen und Jugend, 2007). To get a divorce is also in the long run more costly in Germany than in France.

Table 4.1: Rights and duties of married and non–married couples in Germany

	Marital unions	Non-marital unions
Rights	• joint assessment for income tax	• —
	• co-insurance of non-employed spouse in health insurance of employed partner	• —
	• surviving spouse is considered in widow's pension scheme	• —
	• continuation of hiring contract after death of spouse	• continuation of hiring contract after death of cohabitee
	• partly higher income than non-married employees	• —
	• legal right of succession	• no legal right of succession: children, parents and ex-spouses of the dead partner have a right to get a legal portion to the tune of half of the heritage
	• paid compensation for properties acquired after marriage at divorce	• —
	• pension rights adjustment at divorce	• —
	• right of adoption	• —
	• absorption of costs in case of in-vitro-fertilization	• permission of in-vitro-fertilization only in rare individual cases
	• automatic joint right of custody for mutual children	• joint right of custody for mutual children if the mother agrees (has to be applied for)
Duties	• income of spouse is considered in case of social benefit / educational grants / housing benefits	• income of spouse is considered in case of social benefit / educational grants / housing benefits
	• partners are obliged to pay alimony for ex-spouses who care for children in case of divorce (a longer time than for cohabiting people)	• partners are obliged to pay alimony for ex-spouses who care for children in case of separation (a shorter time than for married people)
	• children have claim of maintenance in case of divorce	• children have claim of maintenance in case of separation
	• children have right of contact with their parents in case of divorce / parents have duty of remaining in contact with their children ("Umgangspflicht")	• children have right of contact with their parents in case of separation / parents have duty of remaining in contact with their children ("Umgangspflicht")

Table 4.2: Rights and duties of married and non–married couples in France

	Marital unions	Non-marital unions
Rights	• joint assessment for income tax depending on the number of children (*Family Splitting*)	• tax relief for non-married parents before 1996, afterwards treated like singles; *Pacs*: joint assessment for income tax after a certain qualifying period
	• co-insurance of non-employed spouse in health insurance of employed partner	• *concubinage*: co-insurance in the health insurance of one partner if the insurant committed oneself to pay alimony for the other; *Pacs*: co-insurance of non-employed spouse in health insurance of employed partner
	• surviving spouse is considered in widow's pension scheme	• widows from cohabiting unions can apply for a kind of funeral benefit
	• continuation of hiring contract after death of spouse	• continuation of hiring contract after death of cohabitee
	• legal right of succession	• no legal right of succession : free voluntary legacy made to the cohabiting partner is limited by the reserve for children and ascendants (60 % for amounts over 1525 Euro).
	• paid compensation for properties acquired after marriage at divorce	• —
	• right of adoption	• —
	• absorption of costs in case of in-vitro-fertilization	• *Pacs*: absorption of costs in case of in-vitro-fertilization after two years of living together
	• automatic joint right of custody for mutual children	• joint right of custody for mutual children (precondition: affiliation within one year after birth)
Duties	• income of spouse is considered in case of social benefit / educational grants / housing benefits	• income of spouse is considered in case of social benefit / educational grants / housing benefits
	• in case of divorce, one of the spouse is obliged to pay financial compensation for the other (*prestation compensatoire*)	• —
	• children have claim of maintenance in case of divorce	• children have claim of maintenance in case of separation
	• children have right of contact with their parents in case of divorce / parents have duty of remaining in contact with their children	• children have right of contact with their parents in case of separation / parents have duty of remaining in contact with their children

The relatively long period of parental leave, the splitting of income between the spouses, the co-insurance of married housewives by the health and long-time-care insurance of their husbands, the recognition of times of childrearing in the pension scheme (since 1986), and the insufficient provision of day care for children younger than three years are all measures that support the role of the caring mother in western Germany and therewith the gender–specific division of labor.

Regarding our discussion on the choice of union, we can conclude that the political and institutional requirements in western Germany provide strong incentives to get married, particularly when one of the partners withdraws from full–time employment after childbirth. Then, marriage is the type of union in which the advantages regarding taxation and insurances are biggest. International studies that compare socio–political conditions across countries reason that in almost no other country the non–employment of married women gets stronger supported than in the western German system (Meyers et al., 1999; Sainsbury, 1994). Within this system marriage is also an institution which protects women in case of separation, however, this protective function got less important in the last years. Recent changes in legislations concerning maintenance deteriorated the position of divorced women (see also section 4.3.5). Mothers with small children are dependent on either their husbands' earning or welfare state support in particular.

For France, the strong support of child care facilities by the state, a parental leave system with its pre–condition of previous employment and no right to pension rights adjustment for ex-spouses are characteristics that strengthen the role of the employed woman. Besides, the legal recognition of cohabiting unions (as "concubinage" or PACS), low payments of maintenance after divorce and the equal treatment of marital and non–marital children long before western Germany make marriage more redundant than in western Germany.

Basic principle is the freedom of choice - mothers are supposed to decide whether they want to be employed or spend more time with their family (Letablier, 2002, p.171). It is also considered to make no difference in which kind of relationship they raise their children - within marriage or within cohabitation. Registered cohabitation, as "concubinage" or after 1999 as PACS, offers many advantages that marriage possesses. However, the French state also provides incentives for dropping out of the labor market after

childbirth just as marriage has quite some advantages over cohabitation. Still, in comparison to western Germany, parents can more easily combine family and work, given that setting and flexibility of child care are more comprehensive. The principle of post–marital solidarity is much weaker in France than in Germany where alimony for one of the ex-spouses can stretch over many years. As a result, French women do not have to and also cannot rely on the institution of marriage as a means of financial and social protection.

Taking all thing in consideration, we conclude that western Germany exhibits a low position of females in the labor market which makes western German women more dependent on either social welfare or the earnings of their husbands. In an institutional setting that encourages female employment, such as in France, marriage is not a necessary precondition anymore - regardless of whether children are involved or not. It might more and more be replaced by cohabitation - at least in the beginning.

4.4 Educational systems and labor markets

The growing investment into human capital and the therewith connected prolongation of education, the increasing independence of women through labor market participation and the emancipatory women movements of the last 100 years are seen from many authors as the determining factors for the growing delay of marriages (Timm, 2004, p.14). The following chapter gives information on education and labor market developments for both men and women and how these developments also impact changes in union formation behavior.

4.4.1 Educational attainment and educational enrollment

The duration of education (the attendance of school, vocational training and/or higher education) differs by country, as well as the age at starting a professional career. In a setting where people remain relatively long in the educational system, maybe accompanied by a strong economic dependence from their parents or the welfare state, the age at which they start to work, earn money and become professionally integrated will be higher than for people who finish school or higher education early and become available for the labor market at comparable lower ages. Long-term binding relationships

such as marriage might be deferred in the first example[29]. In connection with that, school and training tracks also determine labor market entry. In countries with no institutionalized apprenticeships as is the case in liberal welfare states such as Great Britain we mostly find an earlier labor market entry than in countries where education and training are closely connected to the occupational career (as for example in Germany, Austria and Switzerland) (Mayer, 2001, p.103). This prolongs in the latter case the dependency from the parental home resp. the welfare state which leads to a later age at leaving home. Additionally union formation might be delayed, even more marriage.

This section will not discuss the educational systems of France and western Germany in detail but will only focus on the impact of the different systems on union formation behavior. The age of leaving education and the share of women in education over time is of particular interest: regarding the theoretical assumptions in chapter 2.2.3, we expect a long phase of education to be responsible for a longer phase of economic dependency from parents or the welfare state and therewith also for a later age of leaving home and delay in union formation. The share of females in higher education points to the degree of female autonomy and their professional orientation.

Germany

Education and training in western Germany is characterized by a tripartite school system and a dual system of vocational training. The norm for both genders is to attain a vocational or academic degree after leaving general school (Hillmert, 2005, p.156). Those who finish with the lowest educational achievement (*Hauptschule*) seek and start apprenticeships at age 15 or 16 and are normally finished by the age 18 or 19. Those who attend secondary school (*Realschule*) start an apprenticeship at age 16 or 17 and are age 19 or 20 when they have finished. In response to growing labor market risks since the 1970s, graduates from apprenticeships often try to improve their labor market position by returning to school (full-time courses for 1-2 years or evening schools) in order to qualify for entrance into university. Young people with university entrance qualification (*Abitur*) are around 19

[29] See also the discussion on educational enrollment in section 2.2.1.

or 20 years old when they finish school (*Gymnasium*) and study for around 4-5 years at applied universities or 5-6 years at the academic universities. An increasing number of youth who complete the *Gymnasium* acquire apprentice qualifications before proceeding to university. For those, the time span between leaving general school and entering the labor market becomes extended (Mortimer et al., 2005, p.188-189). Educational expansion in the 1970s was of particular benefit for young women. 1953, only 15,3 per cent of all graduate students have been female. 1970 already 26 per cent gained a university degree, 1980 34 per cent, 1990 36,5 per cent, and 2006[30] half of all university degrees were awarded to women (Statistisches Bundesamt, 2008a). The same applies for the share of women with higher education entrance qualification (*Abitur* or *Fachhochschulreife*). 33 per cent of all pupils with *Abitur* have been female in 1950 and 55 per cent nowadays. Of all girls, 29 per cent made their *Abitur* in 2006, compared to only 9 per cent in 1970. The mean age at leaving university has been increasing, from 27,1 years in 1980, to 28,5 in 2006. While the mean age for men has been increasing for around 1,4 years between 1980 and 2006, women are nowadays on average 2 years older than 1980 when they graduate from university (Statistisches Bundesamt, 2008a).

France

Primary education lasts 5 years in France, on a full–day basis. All French children follow a common core curriculum at the same schools (collèges) throughout lower secondary education. A differentiation of educational track appears only at the upper secondary level. Vocational education is not as popular as in Germany. Only if pupils fail on their way to a *baccalauréat* (high school completion similar to the *Abitur* in Germany) they will opt for this track. The tertiary level is more strongly differentiated than in Germany. Different types of private and public institutions coexist and offer a wide range of study programmes with different purposes and approaches. Vertical stratification is also more pronounced in France than in Germany: there exist a large number of short–track and practically oriented tertiary level studies but also elite institutions, the so–called *Grande Ecoles*, which both have no equivalent in Germany (Lauer, 2002).

[30]The number for 2006 applies to unified Germany.

Between 1970 and 1990, the French educational system strongly changed. Educational expansion was rapid: compared to 1970, when French employers had to draw on cohorts with extremely high proportions of only compulsory qualified school-leavers, the qualification profile of recent school-leavers has become up-graded and diversified (Brauns et al., 1997, p.9). Nowadays, French boys and girls start school earlier and leave the educational system later and later. 40 per cent of the two year olds and 97 per cent of the three year olds are already enrolled in pre-schooling (Toulemon and Lapierre-Adamcyk, 2000). Since the end of the Second World War, the increase in the duration of formal schooling in France has been spectacular: it doubled in fifty years. Today more than 60% of all pupils make their *baccalauréat* compared to 4% in the 1946 cohort (Meron and Widmer, 2002, p.303). Women have profited more from the educational expansion than men. At the beginning of the seventies, French young women left school with lower qualifications than men. Today, on the contrary, a higher percentage of women have on average higher diplomas than men. In 1993, about 42.5% of women 25-29 years old have at least their *baccalauréat*, compared to 34.5% of the men in this age group (Goux and Maurin, 2003, p.61-62). Women are also more numerous at universities than men. The increase in the lengthening of school enrollment has also been dramatically: 75 per cent of boys and 83 per cent of girls born in 1970 were still attending school at the age of 18, as compared to 42 per cent and 47 per cent in the 1950 cohort (Toulemon and Lapierre-Adamcyk, 2000). The median age at end of education was 21.2 years for those born in 1977 compared to 14.9 years of the 1930-generation (Prioux, 2003a). University students rather rarely graduate later than age 24 (Scherer and Kogan, 2004) – in contrast to their western German counterparts who graduate much later.

4.4.2 The situation of men and women in the labor market

Improved educational opportunities, especially for women, are one of the biggest achievements of the social change starting in the late 1960s and early 1970s. But have women been able to translate their good education into a strong labor force attachment and gained therewith a higher degree of economic independence?

After entering the labor market, further regulations emerge which influence the life of young people and their union formation behavior. Their

position on the labor market can be weakened by insecure employment relationships or a high likelihood to become unemployed. Particularly when referring to the theoretical considerations given in section 3.2.1, an insecure labor market position should hamper young men's and women's marriage formation: Men's instability in early occupational trajectories leads to later ages at marriage (Oppenheimer, 1997) since men's ability to earn is often viewed as a prerequisite to marriage (Liefbroer and Corijn, 1999; Smock and Manning, 1997). Of course, this affects the timing of women's marriage as well. For women, gender specific division of labor might keep women away from the labor market and reduces them on unpaid family work. In countries where little or no accommodation has been made to the change in women's roles, and men are still assumed to be the main breadwinner, it is difficult for women to maintain independent and reconcile the demands of family life and a labor market career. The degree of income inequality between the sexes and the prospects of re-entering the labor market after family leave are additional factors. Large wage gaps might on the one hand implicate an unequal treatment of men and women on the labor market and reduce the gains of being employed for women. On the other hand it might reflect the fact that women are under-represented on the labor market and / or are more often part-time and fractionally employed than men. Both explanations indicate a low position of females in the labor market which makes them more dependent on either social welfare or the earnings of their husbands. Moreover, if re-entering the labor market after childbirth becomes difficult, they have to rely on a breadwinner who supports the family and marriage is the kind of partnership which provides the most secure form of support for them.

This section contains information on women's employment, the level of part- and full-time employment, the changes in employment after childbirth and prospects of re-entering the labor market after childbirth for women. Since it is also argued that men's instability in early occupational trajectories leads to later ages at marriage (see again section 3.2.1 on page 26), we also observe men's situation on the labor market. Their position on the labor market can be weakened by insecure employment relationships or a high likelihood to become unemployed.

Germany

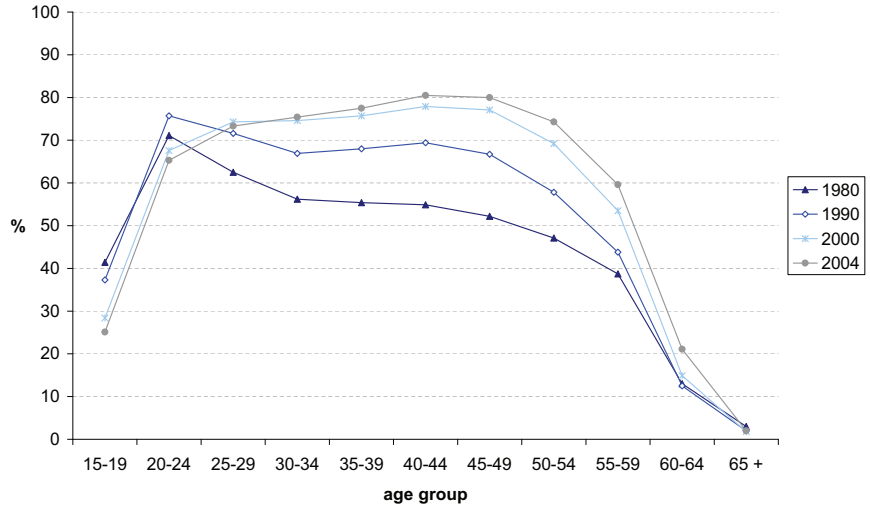
As already discussed in chapter 3.5 on page 42, the postwar West German welfare regime can be characterized as employment centered, defining access and level of the main social security provisions (health care, unemployment insurance, and pensions) for husband, wife, and children by the continuous full-time participation of one (usually the male) household member in the labor market (Gottschall and Bird, 2008). Since the 1970s, with an expansion of the service sector and a decline of the industrial sector, female employment rates have been growing, particularly for women between 25 and 49 years of age. Before age 25 they are often still in education or training and after age 49 the level of employment decreases due to a policy of early retirement. (Maier, 1997, p.18). Until the 1990s, labor force participation rates[31] for western German women showed a M-pattern: part of the women, especially young ones, drop out of the labor market after childbirth but return after interruption (Figure 4.1 on page 88).

There is a change between 1990 and 2000: though the rate is still lower in younger age groups, it recovers faster and reaches a value of around 78 per cent in the age group 40-44. In contrast, 1980 only 55 per cent of women in this age group were employed. This increase is primarily due to an increase in the employment of married women. Compared to 1985 where 50 per cent of married women were employed, 1999 already 69 per cent have been on the labor market. But also the employment rate among mothers has been rising since the 1970s in West Germany: from 39.7 per cent in 1972 to 50.2 per cent in 1990 (Bothfeld et al., 2005). Labor force participation rates of single women are in contrast relatively constant: 86,6 per cent in 1985 compared to 88,7 per cent in 1999 (Eurostat, 2001).

The increase in female employment is accompanied by an increase in the proportion of women working part-time: 1985 almost 30 per cent of all employed women were working part–time, compared to already 40 per cent in 1999 and 45 per cent in 2004 (Bothfeld et al., 2005; Eurostat, 2001). The proportion of fractionally employed women (those who do not earn more than 400 € the month) is also growing: in 2003, 21% of all employed women pursued this kind of employment as main activity (Bothfeld et al., 2005). The

[31] Share of the labor force (total number of the employed and unemployed) in the working-age population.

Figure 4.1: Labor force participation rates of western German women, selected years



Source: Statistisches Bundesamt, FS 1 R 4.1.1, Arbeitstabellen; In: Bothfeld et al. (2005)

increase in employment over the last years is basically a result of a growth in female part–time employment. Even though the number of employed women increased during the 1990s, as a result of part–time and fractional employment, total working hours have been decreasing (Beckmann, 2003).

The prospects of re-entering the labor market after family leave and the degree of income inequality between the sexes are additional aspects we have to keep in mind when we look at women's position on the labor market. In Germany, the birth of a child reduces the rate of gainful employment. In their study on re-entry into the labor market after parental leave, Beckmann and Engelbrech (2001) detected that a long take-up of parental leave deteriorates women's position on the labor market. In the year 2000, they investigated 3000 women who became mothers between 1992 and 1997 and questioned them about their parental leave experiences. Most of the western German women were in parental leave between two and three years, afterwards the majority of those women previously employed (before the birth) also worked again, but mostly part-time, or they subsequently went into parental leave with another child. Around 30 per cent did not work again,

either because they wished to stay at home or because their former employment status could not be reconciled with childrearing tasks. Another child in the household moreover reduced their labor force participation (Beckmann and Engelbrech, 2001). However, for those who return to the labor market after childbirth, their chances of finding equivalent or even better working conditions are good. Though only one third of the women return to their old working place, only one quarter of those women state that their new job would be worse than their old position (Engelbrech and Jungkunst, 2001).

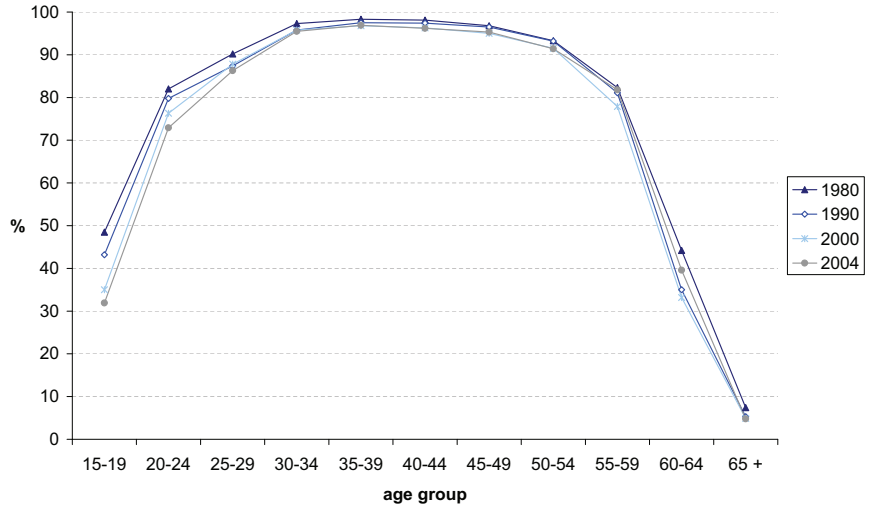
Large wage gaps might implicate an unequal treatment of men and women on the labor market or it might reflect the fact that women are underrepresented on the labor market and / or are more often part-time and fractionally employed than men. Both explanations indicate a low position of females in the labor market which makes them more dependent on either social welfare or the earnings of their husbands. Germany has one of the largest gender wage gaps in the European Union. In 1985 the difference between male and female median full-time earnings as a percentage of male median full-time earnings has been 27 per cent for western Germany and 17 per cent for France. In 1995 this number decreased to 10.3 per cent in France and 23.1 per cent in Germany (OECD, 2001). These differences seem to be confirmed by national research. In France, for example, the average pay of women relative to mens rose from 64% in the 1960s to 82% in 1996 (research covering full-time workers in the private and semi-public sectors). Germany has three different sources of data on the gender pay gap. All three sources point towards a decrease over time, though the variation is quite considerable. According to one source, covering full-time employees in manufacturing and parts of the service sector (small firms excluded), the gender wage ratio based on hourly earnings in West Germany increased from 59.9% in 1950 to 73.3% in 1991 and 71.2% in 2004. According to another source, covering employees in all sectors (except the public sector) who had been insured in social insurances during a year, the gender wage ratio was smaller: 76.2% in 1993 and 76.9% in 2001 but still more pronounced than in France (European Commission, 2006). Researchers attribute the gender gaps to varied causes, such as older women's lagging qualifications, less employment continuity among women, occupational sex segregation, and mechanisms of discrimination incorporated in collectively bargained wages

(Rosenfeld et al., 2004).

The degree of employment also differs by union status. Lois (2008) showed that non–marital cohabiting women in Germany work more often full–time than married women in the year 1998 (63.5 per cent compared to around 32 per cent). The author states that marriage more often involves traditional division of labor while non–marital unions are often composed of a dual–earner couple. The same applies to mothers in non–marital unions. In western Germany, women who are not working or working part–time are substantially more likely to be married than full–time employed women. A relatively high female work orientation is found to be negatively correlated with being married (Konietzka and Kreyenfeld, 2002). Cohabiting mothers more often remain in employment after childbirth than married women. The older the youngest child, the stronger the interrelation between union status and employment becomes (Konietzka and Kreyenfeld, 2005). These results point to the direction that non-marital unions in western Germany refer more often to the double-earner-model than marital unions.

Men are more frequently and more constantly employed than women (Figure 4.2). We find a decrease in employment during early adulthood (under age 25) which can also be seen for women. During that age more and more men and women remain in education and therefore start to work later in life. But also the number of young unemployed increased and led to decreasing labor force participation rates.

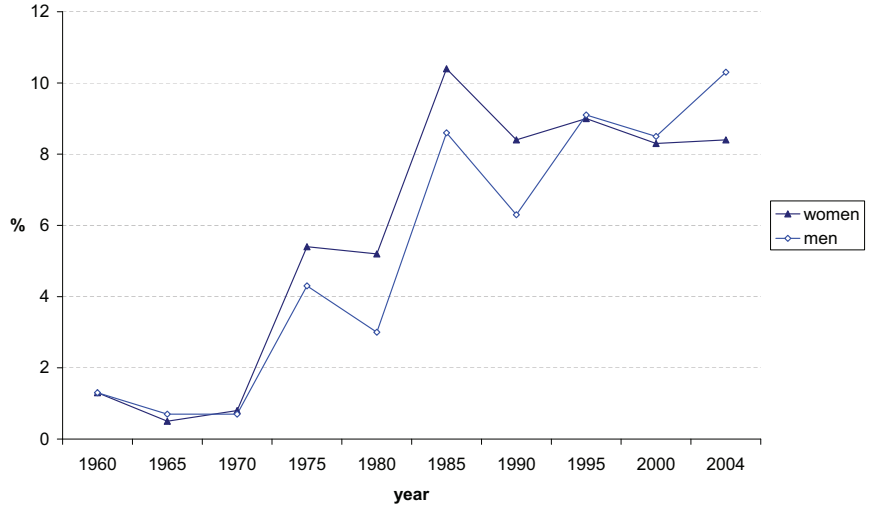
Figure 4.2: Labor force participation rates of western German men, selected years



Source: Statistisches Bundesamt, FS 1 R 4.1.1, Arbeitstabellen; In: Bothfeld et al. (2005)

Due to economic difficulties beginning in the early 1970s, high levels of unemployment became a persistent characteristic of the western German labor market (see Figure 4.3 on page 93). Access to both vocational training and employment became more difficult which led to economic insecurities for individuals and increased the risks for biological decisions and long-term commitments such as marriage (Hillmert, 2005, 157). The number of unemployed has been increasing since the beginning of the 1970s, starting from under 2 per cent 1960 to 4,7 per cent 1975, 9,3 per cent 1985, 9,1 per cent 1995 and 9,4 per cent 2004 (Bothfeld et al., 2005). Female unemployment rates have been higher than males until the beginning of the 1990s. Since then, men are more often hit by unemployment than women. This does not necessarily mean that women are better integrated into the labor market than men. In case of unemployment they often withdraw from the labor market and do not register themselves as unemployed.

Figure 4.3: Unemployment rates[1] of western German women and men, selected years

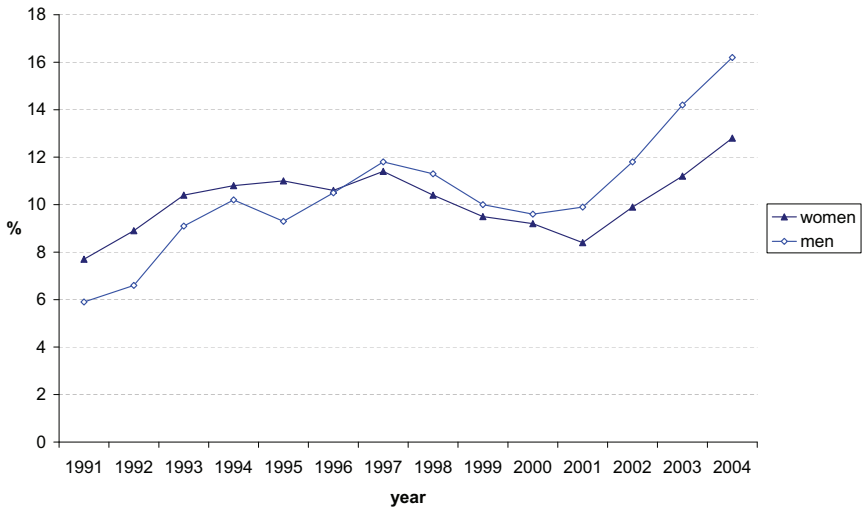


[1]The unemployment rate is based on the number of unemployed in relation to the dependent civilian labor force.

Source: Bundesagentur für Arbeit, Statistik Datenzentrum, ANBA, Arbeitsstatistik - Jahreszahlen, In: Bothfeld et al. (2005)

Young people are affected disproportionately by a deterioration of the economic condition. Unemployment of young adults almost doubled between 1991 and 2004 (see Figure 4.4 on page 94). Especially young men are concerned by unemployment. Their share increased from 6 per cent in 1991 to 16 per cent in 2004. One explanation might be the concentration in particular professions: while girls decide for a wide range of service occupations, boys still choose classical occupations in the manufacturing sector which has been affected more strongly from unemployment than the service sector (Bothfeld et al., 2005). The group of lowest qualified appears to be increasingly less able to secure employment in quickly changing labor markets: Economic downturns produce stronger growth of the unemployment risks among the least qualified (Müller, 2005, p.476).

Figure 4.4: Unemployment rates of western German women and men, age 15-24, selected years



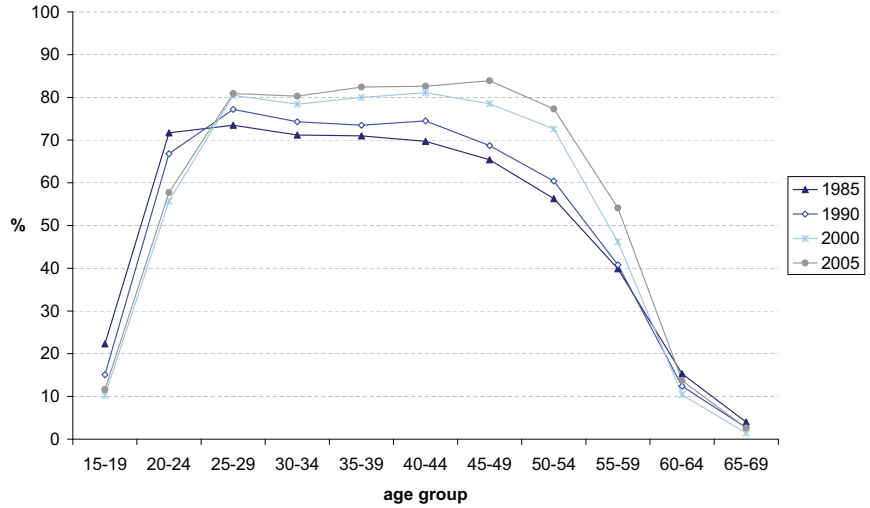
Source: Statistisches Bundesamt, Wiesbaden, FS 1 R 4.1.1, In: Bothfeld et al. (2005)

France

Starting from 50% in 1970 and 70% at the end of the 1980s, nowadays around 80 % of all women aged 25-54 are economically active; most of them work full-time (OECD, 2004). Similar to their western German counterparts, young French women today are less often employed than those in the 1970s or 1980s: the labor force participation rate decreased from 50 per cent for women between age 15-24 in the year 1975 to 31 per cent in the year 2006. This development is mainly accompanied by the prolongation of education (see previous section) but to a much greater extent than in western Germany also by a high youth unemployment. The more or less continuously integration in the labor market is a characteristic for French women between age 25 and 49. In the age group 25–29 around 81 per cent of women have been actively employed, 7 per cent more than in western Germany (Figure 4.5).

Also in France, the increase in female employment has been mainly determined by an increase in the employment of married women. Their labor force participation rates increased from 65 per cent in the age group 25–49 in the year 1985 to slightly over 76 per cent in the year 1999. Labor force

Figure 4.5: Labor force participation rates of French women, selected years



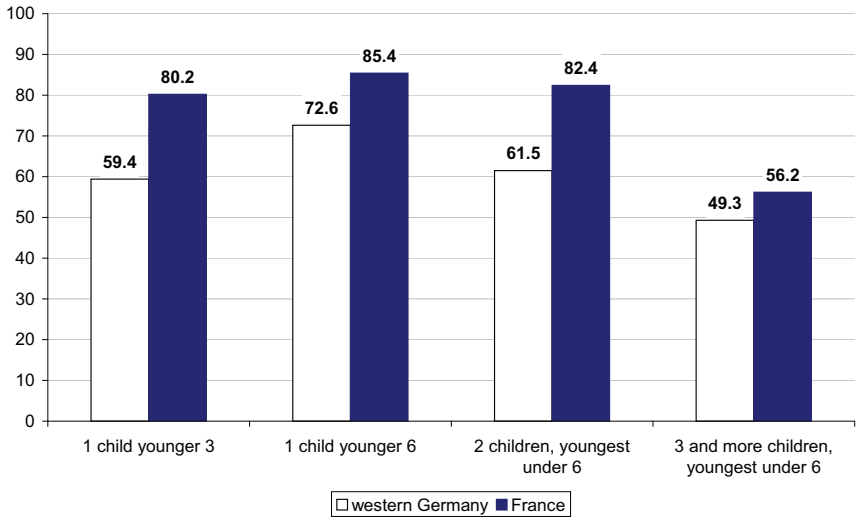
Source: Eurostat (2008)

participation rates of single women remained relatively constant at 85 per cent or even decreased slightly (Eurostat, 2001). French women often work full–time. Until the beginning of the 1990s less than one quarter of all employed women have been part–time employed (Eurostat, 2001). In recent years, part–time rates increased but are still lower than in western Germany. In the age group 25-49, 29.1 per cent of the French women were working part–time in 2003 (OECD, 2006).

For a cross–country comparison of female employment it is important to know that employment or activity rates can be biased: A high degree of childless women within the female population also implies that their employment behavior is considered above average. Western Germany is characterized by a high share of childless women (Dorbritz and Ruckdeschel, 2007) in contrast to France with a comparable low degree of lifetime childless women (Koeppen et al., 2007). Since in both countries childless women are more often gainful employed than mothers, employment rates might not consider the difficulty of combing work and family life. An indicator that makes a statement about gender equality on the labor force, compatibility between work and family life and the realization of the economic indepen-

dence of women should consider the employment behavior of women with children (Kreyenfeld and Geisler, 2006). Figure 4.6 displays the labor force participation rate of mothers.

Figure 4.6: Labor force participation rates of French and western German mothers by number of children under age 25 and age of youngest child (in per cent), 1997



Source: Eurostat, Labor Force Survey 1997, In: Reuter (2002a)

French women often keep their employment even though they have to care for small children. In the year 1997, 80 per cent of mothers with one child younger than three years are economically active in France compared to 60 per cent in western Germany. Not until there are three or more children in the household, labor force participation rates in France and western Germany converge (Becker, 2000). The situation of couples with children highlights the differences to western Germany even more. In almost half of all households with children under age 15 both partners work fulltime in the year 2000 compared to 26.1 per cent in western Germany (table 4.3). Only 16 per cent of the French couple–households with children consist of a woman working part–time and her partner full–time. However, despite this difference, one-earner households are not that seldom: 36 per cent in France compared to 39.7 per cent in western Germany. The striking differences thus only occur in double–earner households who present the majority of households (Reuter, 2002b).

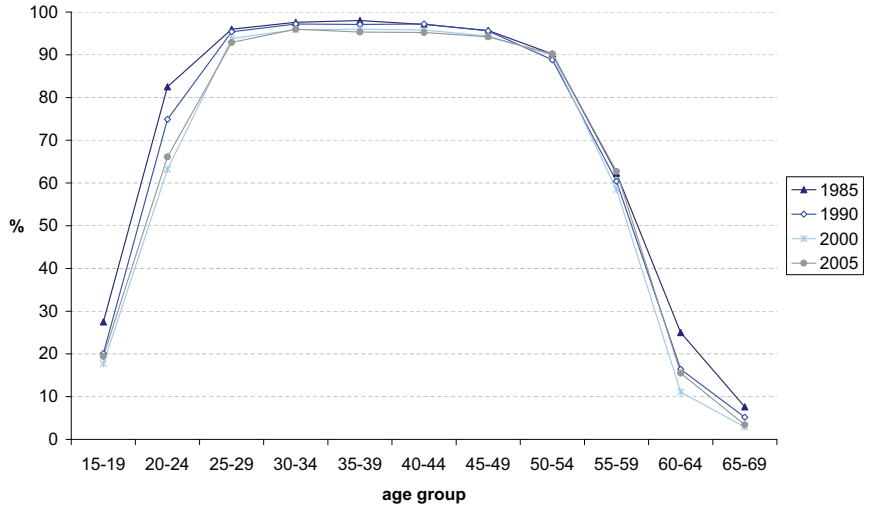
Table 4.3: Employment status of western German and French couples with children in the year 2000 (per cent of couples in which one of the partners is employed)

	both part–time	man part–time woman full–time	man full-time woman part–time	both full–time
western Germany	0.6%	0.7%	32.9%	26.1%
France	1.2%	1.1%	16.3%	45.4%

Source: Eurostat 2002, In: Reuter (2002b)

Equally to western Germany, French men are more frequently and more constantly employed than French women (Figure 4.7). However, just as French women, they are less frequently in employment during early adulthood than their western German counterparts.

Figure 4.7: Labor force participation rates of French men, selected years

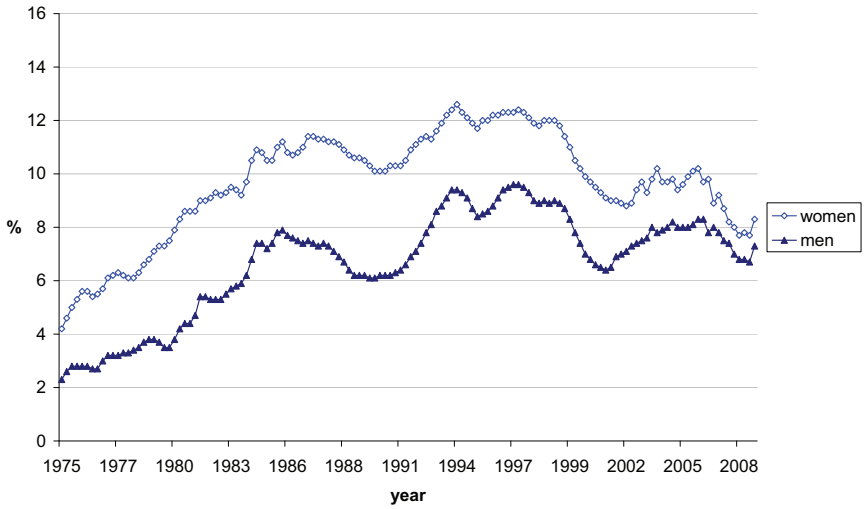


Source: Eurostat (2008)

Youth unemployment is a large problem and accounts next to the prolongation of education for low employment rates in early adulthood. They are also less often employed after age 54 due to a policy of early retirement. In 2001 almost 60% of men in France in the 50-64 age group were employed, compared with an average 68% in OECD countries. Over the last thirty years, a rather distinctive pattern of employment rates has emerged

in France. It is characterized by particularly low employment rates for workers before the age of 25 and after 55, in contrast with the 25-54 age group (OECD, 2006). Remarkable are the high rates of unemployment for French women. They are more often unemployed than men despite the fact that they more often work in the tertiary sector which is structurally less affected by unemployment than other sectors (Toulemon and de Guibert-Lantoine, 1998) (see figure 4.8).

Figure 4.8: Unemployment rates of French women and men, selected years

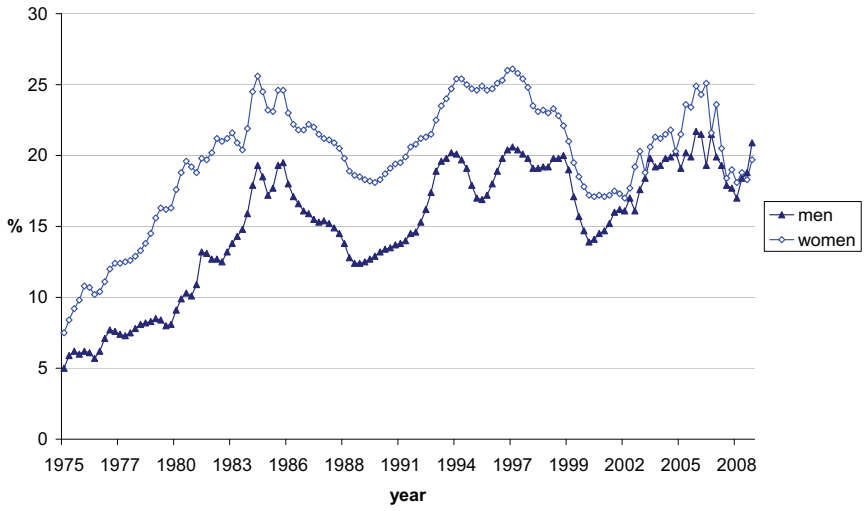


Source: INSEE (2009)

Young women in particular are hit by unemployment above average: in the year 1995 27 per cent of all unemployed have been between age 15 and 24. Of the women in this age group, even 31 per cent have been unemployed (see figure 4.9 on page 99). In Germany (eastern and western part together) the share was only around nine per cent in the same year (Maier, 1997, p. 25).

The differences regarding employment during early adulthood can be tracked back to specific institutional structures in both countries. In an educational system with an emphasis on vocational training – such as the German dual education (combination of in-firm training and vocational school) – graduates acquire occupational-relevant qualifications immediately. The educational system and the labor market are closely connected with each

Figure 4.9: Unemployment rates of French women and men, under age 25, selected years



Source: INSEE (2009)

other and the employer gets reliable and relevant information on the performance of the employee. German men, for example, are to almost 80 per cent full–time employed one month after end of education (Scherer and Kogan, 2004). Young French men and women have more problems in entering the labor market since occupational education is less common. The primary goal of education at the secondary level is to provide students with general education. An apprenticeship qualification at this stage is not considered as a positive selection criteria, since it is mainly acquired by those pupils who failed in the general educational system (Brauns et al., 1999). Occupational education has been extended to the tertiary level. The educational system in France produces less occupational qualified graduates than in Germany and therefore cannot provide the employer with direct professionally applicable information. As a result, young adults might expect long waiting periods before entering the labor market (Scherer and Kogan, 2004).

Additionally, unemployment accounts for the differences between employment and labor force participation rates in France. While labor force participation rates of French men and women are always higher than for western Germans, employment rates are almost similar to western German rates.

This originates from the mode of measurement. Labor force participation rates take the employed *and* unemployed into account while employment rates only refer to the employed population within the reference population. Therefore, due to higher unemployment rates for French men and women, particularly in younger and older ages, French employment rates are similar to German employment rates. Differences occur mainly when we look at economic activity rates.

4.4.3 Summary

Men and women in both countries remain longer in education: the median age at leaving school in France and Germany increased over cohorts. In France, the age at leaving school increased from 14 years for people born before 1930 to 20 years for those born around the year 1970 (Robert-Bobée and Mazuy, 2003). Also in Germany, the median age at leaving school and starting to work has increased (Konietzka and Huinink, 2003).

In both countries, the later professional status is strongly dependent on the educational achievement. Therefore investments in education are correspondingly high. Higher educational degrees are more and more prerequisites for qualified professions and lower levels of education lose in value. The increasing age at first marriage is one well-known outcome of this development. The economic dependency from the parental home or from the state as well as the time needed for education are not compatible with the assumed requirements of marriage and family foundation (Müller et al., 1999). In both countries we can observe an increase in the age at finishing school and a growing proportion attending university which prolongs the period of dependency from the parental home or state transfers. In Germany, especially highly educated people are much older when they leave the educational system: they are around 28 years old compared to 24 years in France. For them, long-term binding relationships such as marriage might be delayed. The share of females in higher education points to the degree of female autonomy and their professional orientation: In both countries women are now as good or even better educated as men, which gives them better opportunities in the labor market, increases their human capital and delays their entry into the labor market. As a consequence, union and family formation becomes delayed as well.

In both countries, female employment increased over the last two decades,

particularly in the age group 25-49. Before 1990 part of the western German women dropped out of the labor market during childbearing age and returned after an interruption. This break disappeared in recent year. However, accompanied by an increase in female employment, likewise the proportion of women working part–time increased and total working hours decreased in western Germany. Working part-time is often the only possibility for women with children to combine work and family life, since child care outside the family is not widespread (see section 4.3.2 on page 62). French women are employed relatively continuously. Full–time work is more frequent in France compared to western Germany even though part–time work is increasing in recent years. The employment behavior of women with children reveals larger differences. Mothers in western Germany are less often employed than French mothers and double–earner households, especially in which both partners work full–time, are less frequent than in France. A French particularity is the high proportion of working mothers, especially those with pre-school children. Next to a large supply of day care, the strong labor force attachment of French mothers has been supported by a parental leave system with its precondition of previous employment and the availability only from the third child onwards (since 1992 from the second). A long–take up of parental leave in western Germany with its low compensation during that time implies that western German women have to rely on a breadwinner who supports the family and marriage is the kind of partnership which provides the most secure form of support for them.

However, it is not only the degree of gender equality on the labor market or the economic independence of women that influences union formation behavior. Economic uncertainty is known as an important factor in delaying marriage and preferring less binding relationships such as cohabitation. Since the 1970s, unemployment has been growing in both countries. In western Germany, men are more often unemployed than women. Bell et al. (2007) conducted a study in which they analyzed trends in the age of economic independence in six industrialized countries, among them also Germany, by using the Luxembourg Income Study. They discovered that between the middle of the 1980s and 2000 young adults experienced a decline in income adequacy in many European countries. In western Germany, the deterioration occurred for both genders and in every age group and cannot be explained by the prolongation of education. The losses were much

bigger among young men and young adults who lived independently of their parents than among young women or for those who remained in their parent's households. These results point to a decline in the ability of young adults, especially young men, to form independent households and offer a consistent picture of declining economic self-sufficiency among young men and very young women in the countries studied (Bell et al., 2007, p.47).

In France, youth unemployment is a large problem. In particular, young women are hit by unemployment above average. Unemployment and job insecurity have a direct impact on union formation behavior. Ekert-Jaffé and Solaz (2001) examined the impact of insecure professional status on union formation using the 1994 French Family and Fertility Survey. Unemployment generally delays couple formation and accounts for most of the delay in union formation observed in France since the eighties. Both unemployment and job insecurity reduce the probability of marriage for both genders. An unstable job is almost as strong a handicap as joblessness - an insecure job shortens couple duration, particularly for men. Family decisions require that partners believe in the future in order to build something. An uncertain professional situation does not encourage such security. Not only union formation becomes delayed, but unemployment also leads French women to postpone the birth of their first child, this is even more evident when the woman has relatively little education and when she belongs to the most recent birth cohorts (Meron and Widmer, 2002).

Chapter 5

Summary and research hypotheses

Many theories of marriage formation emphasized the modified role of women's economic position over the last decades as one of the major reasons for the decline and delay in marriages. As we saw in chapter 3, the underlying assumptions and theoretical implications are different. However, the fact that the rise in female education and employment changed the role of women and marriage in the last decades is undisputed. Only, *how* these changes effected union formation is still discussed controversially. Representatives of the economic theory state that women's education and women's economic independence undermine the division of labor and make marriage less beneficial. Critics argue that the growth in women's economic independence mostly effects the timing of marriage and expect a delay in marriage rather than an overall decline. Women's education or economic independence per se does not reduce their gain for marriage but it delays marriage formation and leads to a growth in less-binding relationships such as cohabitation. Additionally, it is assumed that a weakening of men's labor market position delays marriage formation as well and leads to increases in cohabitations.

Changes in union formation behavior can also be attributed to changing norms and values which we discussed in chapter 3.3. Ideational theory interprets the rise in consensual unions and decreasing marriage rates as responses to the long–term ideational shift towards greater individualism and materialism. Less traditional living–arrangements such as cohabitation spread among the people with higher education to all other social groups.

The expansion of education can be viewed as one of the most important factors for the declining importance of the institution of marriage, a rise in divorce, and the growth in less traditional unions such as cohabitations. In chapters 3.4 and 3.5 we argued that country–specific characteristics, either as cultural heritage or as welfare state regime, have a great impact on the individual decision regarding union formation and should not be neglected in theoretical considerations. Therefore, chapter 4 discussed in detail differences in family policies, institutional structures and legislations between France and western Germany. Additionally, we displayed the situation of men and women in the educational system and on the labor market. Different welfare state regimes produce different patterns of labor market integration of both men and women and strengthen or weaken thus womens dependency on the institution of marriage. The rise in education and female employment per se does not necessarily lead to a growth in womens economic independence if countryspecific structures hinder women and in particular mothers to translate their improved educational opportunities into an increase in their labor force attachment. Welfare state policies also influence legislation on marriage and cohabitation which again impacts the individual decision regarding union formation.

In this study we focus on four aspects which we derived from our theoretical and contextual discussion and consider as most important in the context of union formation behavior in France and western Germany: 1.) the extend in which first union formation patterns change over time, 2.) the impact of educational level and enrollment on union formation behavior, 3) the effect of employment on first union formation and 4.) the interrelationship between childbearing and first union formation. For each of these aspects, we present main research questions and hypotheses.

5.1 Changes of first union formation patterns over time

Factors that influence union and family formation behavior may differ by their meaning and strength across calendar time. To reveal changes in union formation behavior over time, we therefore observe *calendar time* and *birth cohort* in our study. We are especially interested in various interactions of

covariates with time. One example of such an interaction with time regards changes in the impact of education over time. In western Germany in the mid–1970s and at the beginning of the 1980s only selected groups of individuals choose to cohabit instead to marry: mainly young, well–educated adults in larger cities (Lauterbach, 1999) understood themselves as "avant-garde". Also in France, unmarried cohabitation is assumed to spread from students down to all other social groups (Villeneuve-Gokalp, 1991). Our research question therefore concerns the diffusion of non–marital unions since then. Were highly educated women forerunners of cohabitation in both countries and how has this changed over calendar time and birth cohorts? Another example for a probable interaction with time is the relationship between childbearing and union formation behavior. We expect that women from older cohorts who became pregnant had a much higher risk of getting married than women from younger generations. We assume that with the increase in non-marital cohabitations and better acceptance of non–marital births, pressure from society to give birth within a marriage has been strongly reduced.

In addition, we want to know whether non–marital cohabitation has changed its meaning over time in both countries: Can cohabitation still be viewed as a stage in the marriage process or has it become an alternative to marriage? The strong postponement of first marriage for younger women and the increasing popularity of new forms of unions such as cohabitations indicate a changing paradigm: non-marital cohabitation seems to become more than just a short prelude to marriage but a living arrangements on its own.

(H1): **We expect that western German and French women who entered their first union during the 1960s and 1970s married more often directly than women who started living together in the 1980s and 1990s who more often choose non–marital cohabitation over direct marriage. In western Germany, cohabitation has developed from a marginal phenomenon to a stage in the marriage process whereas in France non–marital cohabitation has become an alternative to marriage.**

5.2 The impact of education on women's first union formation behavior

Whether education has a structural or a causal impact on individual behavior is still not clear, previous empirical studies came to mixed results. In the first part we discuss a possible causal effect of *educational level* on union formation while the second part refers to the structural impact of *educational enrollment* on first union formation behavior.

5.2.1 Educational level

Institutional frameworks have different effects on the choice of union and economic independence of women. In **western Germany** we find several institutional constraints and economic incentives that support the model of the married couple. Historically grown family policies and institutional structures still hamper the economical independence of western German women. We find a low provision of child care for the under 3-year old children in western Germany, as well as only few child care facilities that provide afternoon care, also for older children. The parental leave scheme supports long exit from work after childbirth (at least until recently), the tax system prefers marriages in which on of the spouses is non-working or earns much less than the other, we find weak fathers rights in connection with illegitimate children before 1998, and the principle of post-marital solidarity after a divorce is very strong in western Germany where until recently alimony for one of the ex-spouses could stretch over many years. We conclude that the low position of females in the labor market makes western German women more dependent on either social welfare or the earnings of their husbands; marriage means not only a personal commitment but it represents also an institution in which children can be raised and which provides financial coverage in case of separation. Arguing from the economic perspective, within this context the gain of marriage becomes especially reduced for highly educated women. This is due to the lowering importance of gender-specific division of labor and increasing opportunity costs of children in western Germany. Since marriage and childbearing are still closely connected, highly educated women are assumed to avoid marriage if marriage affects womens labor force participation negatively. The higher their opportunity costs of dropping out of the labor market, the more they will

try to postpone marriage and childbearing. Their need for marriage as social security function and as a union that offers higher tax reliefs and other financial benefits compared to other living arrangements is much lower than for women with lower career aspirations. The gain of marriage becomes reduced and, as a consequence, marriage rates decrease.

The effect of an increase in women's economic independence on entering cohabitation is assumed to be on the one hand the same as for marital unions since it reduces interdependence between the partners. On the other hand, it might also make non–marital unions more attractive since individuals can gain from the economic advantages of a shared household while maintaining their relative independence. As a result, women's economic independence may have no net effect on cohabitation. However, since cohabitation might involve less commitment to the relationship and to children, opportunity costs of cohabitation may be less than those of marriage. In addition to the economic argument, one can argue that people with higher education have values and preferences distinct from individuals with lower education (see section 3.3). They are more committed to individualism and gender equality and less supportive of authority. Less traditional living–arrangements such as cohabitation are expected to spread among the people with higher education to all other social groups. With the expansion of education and the growing share of better educated women, new lifestyles including extended periods of single living, cohabitation or same–sex partnerships spread from the higher educated to all other social groups through the process of diffusion (Sobotka, 2004). This effect should be more pronounced in the starting years of the diffusion process, namely in the 1970s and 1980s when cohabitation started to increase in both countries. Afterwards it spread to all other social groups and differences became less.

(H2): **Our *Hypothesis 2* states that educational level has an overall negative effect on marriage formation for western German women and a positive effect of educational level on cohabitation.**

In **France** where maternal employment gets supported much stronger than in western Germany and constraints for being in a cohabiting union instead of a marriage are not that strong, we expect no such large differences between educational groups. Historically grown family policies and institu-

tional structures support the economical independence of French women. French women are more likely to continue work after parental leave since they can make use of the generous supply of child care arrangements. France is one of the international leaders in the provision of full-day preschools and schools, allowing parents to be engaged in gainful employment and therefore not be dependent on each others income anymore. During our observed time period the French parental leave scheme supported a fast re-entry into work after childbirth. In France there is an almost complete equation of rights and duties for marital and non-marital children long before western Germany. While the French tax system also prefers marriages in which one of the spouses is non-working or earns much less than the other, French couples with children also benefit from the traditional system of family splitting which favors large families. The principle of post-marital solidarity is much weaker in France: French family laws are characterized by a relatively weak protection of the ex-spouses upon divorce. We conclude that French women *do not have to* and also *cannot* rely on the institution of marriage as a means of financial and social protection. Marriage becomes more redundant and might be replaced by cohabitation. From the perspective of the economic theory of the family, French mothers encounter lower opportunity costs of childrearing compared to their West German counterparts – even when raising and caring for children, they can keep their job and their income. This lowers on the one hand their opportunity costs but makes on the other hand also the security function of marriage less important. The negative effect of education should be lessened in this context.

Regarding the impact of educational level on cohabitation in France, next to ideational explanations we refer to the argument of the improvement in women's bargaining position due to a higher economic independence. If the bargaining position of women improves due to a higher economic independence from the state or the partner, they can incorporate premarital cohabitation into search and bargaining processes to find a suitable partner. Cohabitation provides better opportunities to observe men's earnings potential and willingness to share household and childrearing tasks which might be of particular importance for highly educated women who want to remain in the labor market after family foundation. They might prefer to enter first a non-marital cohabitation than marry directly. In addition, we argue also for France that less–traditional living arrangements such as co-

habitation are expected to spread among higher educated individuals to all other social groups.

(H3): **Therefore, we expect that educational level will have only little impact on marriage formation in France while we assume a positive effect of educational level on cohabitation.**

5.2.2 Educational enrollment

Women's longer enrollment in education is assumed to lead to an increase in delayed marriage instead of leading to a decline in the proportion of women ever married. It is not the rise in human capital investments of women that leads to delayed marriages but women's longer participation in the educational system. During education, young adults are mostly not yet independent from their own parental home and also not yet financially independent. Long-term binding commitments like marriage or the birth of a child are often incompatible with the requirements of their education and hinder flexibility and mobility which is often part of higher education. Besides, the legal consequences of a marriage are quite substantial - in times of uncertain future prospects, as it is the case during education, less binding relationships like unmarried cohabitations are therefore preferred. Arguing from this perspective, the negative effect of education on marriage formation has mainly a structural impact on individual behavior rather than a causal impact.

(H4): **In our *Hypothesis 4*, we expect that women in educational enrollment have lower first union rates compared to women who are out of education in both countries. The effect will be stronger for entry into direct marriage.**

5.3 The impact of employment on women's first union formation behavior

In contrast to the economic approach of Becker (1981), Oppenheimer's hypothesis on the delay of marriage assumes that a decline in economic self-sufficiency leads to later ages at marriages and an increase in more informal

unions such as cohabitation. It is argued that the increase in unemployment and declining economic self–sufficiency among young adults impacts their union formation behavior. Family decisions require that partners believe in the future in order to build something. An uncertain professional situation does not encourage such security. Since the 1970s, unemployment has been growing in both countries (see again section 4.4.2). Studies point to a decline in the ability of young adults to form independent households and offer a consistent picture of declining economic self-sufficiency among young men and women (Bell et al., 2007). In both countries, unemployment and job insecurity are assumed to reduce the risk of marriage for both genders. Taken this into account, women with greater labor market potential should be more attractive to their future spouses than women with poor employment prospects. We therefore introduce another alternative hypothesis:

(H5): **Our *Hypothesis 5* states that women who are in uncertain employment situations are assumed to delay marriage and prefer cohabitation during stages of job insecurity whereas women in a stable employment situation are assumed to prefer marriage over cohabitation.**

5.4 The interrelationship between childbearing and first union formation

As regards the influence of children on women's union formation behavior, we assume that having children increases the risk of living in marital relationships in comparison to consensual unions much stronger in western Germany than in France. The rate and nature of women's employment in western Germany is much more sensitive to the presence of children than in France. If women have only limited access to employment and marriage presents the main institution of economic protection for women with children, unmarried parenthood will be avoided and a binding and legal confirmed institution like marriage will be preferred especially at childbirth. For western German mothers, marriage is the kind of partnership which provides the most secure form of support for non-employed or part–time employed women with children. It also offers the greatest benefits concerning taxation and social security. Following the idea of a polarization of family forms (see again sec-

tion 3.3.2), we expect a high correlation between marriage and pregnancy in western Germany. Those women who are most likely to become mothers are also those who are most likely to become married. Even though marriage is privileged to cohabitation in France as well, the preferential treatment of marriage is less pronounced than in western Germany. Contrary to western Germany, the high share of non–marital births in France suggests that there is no strong interrelation between marriage and parenthood anymore.

(H6): **We expect pregnant women to enter marriage much more often than cohabitation in both countries. As soon as the child is born, marriage rates in both countries are assumed to decrease again. In western Germany, pregnancy more often induces marriage than in France. There, the relaxation of the interrelationship between marriage and childbearing is assumed to start earlier than in western Germany and to a larger extend.**

In the subsequent empirical chapters we test these partially conflicting hypotheses. We look at the timing of union formation in the life course and investigate key factors, in particular the changes in calendar time, the effect of female education and employment, the incidence of a pregnancy, and their influence on the decision to marry or to cohabit.

Chapter 6

Data and methods

6.1 The concept of the life course

For our analysis we refer to the life course approach, an interdisciplinary program of study which studies interconnected trajectories; those trajectories are themselves shaped by events. Life course research analyzes social processes throughout the different stages of life – e.g. during childhood, early adulthood, while being in education and employment or during the period of union and family formation. The life course is defined as a sequence of socially defined events, for example moving out of the parental home, becoming a parent or getting married. The life course approach is a relatively young discipline that started in the 1960s. Before the articulation of the life course idea, social scientist mostly followed a "snap-shot" approach which did not consider the factor time but viewed the impact of the social surroundings on the individual at a specific point in time (Giele and Elder, 1985). The life course approach introduced the time dimension in the analysis of social change; its essence lies in the interaction between biographical time, historical time and social time (Dykstra and van Wissen, 1999, p.6).

Event history analysis has become since the 1980s as one of the principal toolkits of demography and life course research in general (Billari, 2005). It focuses on the time–to–event as the dependent variable. Its statistical models aim to model individual–level data collected from sample surveys or population registers. Time–to–event is linked with explanatory variables

(covariates) who can be grouped into fixed covariates (time–constant variables) or time–varying covariates, either as individual characteristics or as macro–level covariates (e.g. regional economic indicators or policy indicators). With the help of event history analysis one can also investigate complex interdependencies between trajectories or may take into account unobserved factors underlying these complex interdependencies, such as unobserved value orientations or attitudes.

6.2 Methods

1. First union formation

For our analysis of first union formation we use a hazard model, also known as intensity regression model[32]. Hazard models describe the conditional instantaneous probability per unit time for the event to occur (in this case first union formation) at time t divided by Δt, given that that the individual has not experienced the event before time t (see e.g. Blossfeld and Rohwer, 1995). In other words, the outcome of interest is the hazard rate, depending on time and on a set of covariates. The hazard rate is expressed as a function of covariates – either time–constant or time–varying. The baseline hazard (basic time factor) is the age of the women, measured from age 15. We use a piecewise constant model i.e. the basic time factor is assumed to be constant for pre–defined time intervals, but it is allowed to vary across these time periods. The other covariates are categorical, too.

A general mathematical representation of the hazard function is:

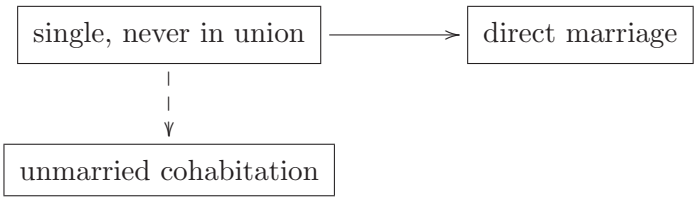
$$lnh_i(t) = y(t) + \sum_j \alpha_j x_{ij}(t) + \sum_j \beta_j w_{ij}(t) \tag{6.1}$$

where t is the time since a woman turned age 15 until first union formation, or at censoring, $lnh(t)$ is the logarithm of the risk of occurrence of the event at moment t, $y(t)$ is the representation of the baseline hazard duration dependence (age of the woman, measured in months from her 15th birthday), x the time–constant covariates, w the time–varying covariates, and α and β the respective regression parameters. In our case, an individual remains in the origin state *single, never in union* until the transition

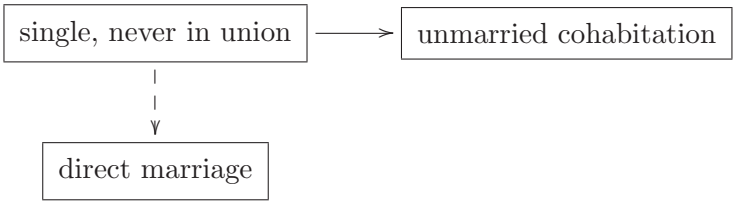
[32]For the advantages and disadvantages of using a proportional hazard model see Kantorová (2004, p.106).

to the destination state *being in a first union*. Since there are two possible destinations, namely entry into direct marriage (marriage without previous cohabitation) or starting a non–marital cohabitation, we use a competing risk framework. At the moment women enter first union by marriage, they are not exposed to the risk of starting a first union by unmarried cohabitation. Similarly, women forming a first union by cohabitation are no longer exposed to the risk of marrying directly. Where neither cohabitation nor direct marriage occurs, the respondent's life history becomes censored at the date of interview. We present a graphical representation of the two transitions below:

1. Transition to direct marriage, unmarried cohabitation as competing event



2. Transition to unmarried cohabitation, direct marriage as competing event



The mathematical representation of the model with two competing hazards can be written as follows (*method 1*):

1. Entry into cohabitation:

$$lnh_{1i}(t) = y_1(t) + \sum_j \alpha_{1j} x_{ij}(t) + \sum_j \beta_{1j} w_{ij}(t) \qquad (6.2)$$

2. Entry into direct marriage:

$$lnh_{2i}(t) = y_2(t) + \sum_j \alpha_{2j} x_{ij}(t) + \sum_j \beta_{2j} w_{ij}(t) \tag{6.3}$$

where $lnh_1(t)$ is the log hazard for the event of interest and $lnh_2(t)$ that for the competing event, x_{ij} and w_{ij} are fixed and time–varying covariates common for both processes but with different parameters α_1 / β_1 and α_2 / β_2. Both hazards can be estimated from available data and when combined form a total hazard that any event will occur equal to $lnh(t) = lnh_1(t) + lnh_2(t)$. Technically, we run two models separately and first replace all events 1 by censoring, then replace all events 2 by censoring. Although both events involve the same covariates, we compute a separate set of parameters for both estimations.

In an extension of the intensity regression model, we analyze competing risk transitions *jointly* by analyzing entry into cohabitation and into direct marriage at the same time (*method 2*). Such a technique allows for a comparison across the two competing transitions and it can be tested whether the effect of various social characteristics on the process of first union formation varies according to the type of union (see e.g. Hoem and Kostova, 2008; Kostova, 2008; Lunn and McNeil, 1995). Technically, we duplicate all spells in the data set; the original spell belongs to risk 1 (e.g. unmarried cohabitation), the newly created spells belong to risk 2 (e.g. direct marriage). We replace in the original spells all events 1 by censoring and replace in the new spells all events 2 by censoring. Then we duplicate all covariates by interacting them with type 1 or 2 of risk. Thus, the cause of decrement is an "extra" factor which can be interacted with the "ordinary" factors, which may also interact with each other. We then obtain the transition rate at a factor level on one intensity relative to the corresponding factor level on the other intensity. The maximum-likelihood estimation produces the same results as in method 1. However, with this procedure one can compare the baseline hazards directly and see the differential effect of age on each transition, standardized for the other covariates. One can also study trends over calendar time across the two competing risks to check whether a fall in the rate of entry into marriage is accompanied by a compensating increase in the rate of entry into cohabitation (Hoem and Kostova, 2008). In the

mathematical expression, the cause of decrement (type of union formed) is introduced as an extra subscript l:

$$\mu_{ijkl} = a_{il} b_{jl} c_{kl} \tag{6.4}$$

If we assume that beside age (Factor A) there are only two covariates, namely, a fixed factor B and a time–varying factor C, then μ_{ijkl} represents the intensity of decrement l, with $l = 1$ for entry into a non–marital union, and $l = 2$ for entry into direct marriage for an individual in age group i with level j on factor B and level k on factor C. Corresponding to the two types of decrement there will be two occurrence matrices, $\mathbf{D}_1 = \{D_{ijk1}\}$ and $\mathbf{D}_2 = \{D_{ijk2}\}$, but there will be only one matrix of exposures $\mathbf{R}$, as an individual has the same months–exposed–to–risk for both types of transition (cohabitation and marriage). In the joint analysis of the two competing transitions combined occurrences and exposures matrices are used:

$$\mathbf{D}_* = \begin{pmatrix} \mathbf{D}_1 \\ \mathbf{D}_2 \end{pmatrix} \quad \text{and} \quad \mathbf{R}_* = \begin{pmatrix} \mathbf{R} \\ \mathbf{R} \end{pmatrix}.$$

This formally correspondents to entering the type of decrement as an extra factor in the analysis where the extra factor operates in a two–way interaction with each of the factors A, B, and C[33].

The analysis has been conducted with the help of the software package STATA, version 10.

2. Subsequent marriage formation

Next to first union formation we also study the subsequent development of cohabitation as the first union of women. The starting point is the beginning of cohabitation. There are three possible outcomes of the cohabitation state: marriage, dissolution/death of partner, and no subsequent transformation. We only discuss the results for marriage formation after cohabitation since our theoretical considerations focus on the aspect of union formation. Union dissolution/death of partner is accounted for as censor event. Censoring also occurs at interview date if the respondent remains in the status "cohabit-

[33]For more detailed description of the method see Hoem and Kostova (2008).

ing" until time of interview. This method gives information on the pure propensity of partners in consensual unions to transform their union into a marriage in the hypothetical situation where no one is to face a dissolution of their union (Anderson and Philipov, 2002).

Within this process, we investigate more in–depth how the conception of a first child determines subsequent marriage rates in both countries. As regards the influence of children on women's union formation behavior, we assume that having children increases the risk of living in marital relationships in comparison to consensual unions much stronger in western Germany than in France. The rate and nature of women's employment in western Germany is much more sensitive to the presence of children than in France. If women have only limited access to employment and marriage presents the main institution of economic protection for women with children, unmarried parenthood will be avoided and a binding and legal confirmed institution like marriage will be preferred especially at childbirth. For western German mothers, marriage is the kind of partnership which provides the most secure form of support for non-employed or part–time employed women with children. It also offers the greatest benefits concerning taxation and social security. We expect a high correlation between marriage and pregnancy in western Germany. Those women who are most likely to become mothers are also those who are most likely to become married. Even though marriage is privileged to cohabitation in France as well, the preferential treatment of marriage is less pronounced than in western Germany. Contrary to western Germany, the high share of non–marital births in France suggests that there is no strong interrelation between marriage and parenthood anymore.

We therefore also study the transition to the first conception respectively the transition to first marriage for childless cohabiting couples, who were not previously married before the beginning of the union. Both events are analyzed as interrelated processes, also known as *multiprocess modelling*, and it will be shown whether observed and unobserved individual characteristics simultaneously influence first birth and first marriage (Brien et al., 1999; Lillard, 1993). Similar studies have been conducted for other countries too. Baizán et al. (2003) studied the same interrelated processes for Spain and found a positive correlation coefficient. Le Goff (2002) conducted a study

between France and western Germany and found a positive and significant correlation coefficient for western Germany only and a low and insignificant correlation for the case of France. Kantorová (2004) analyzed the Czech Republic where she found a very strong correlation between first union formation and first birth. In another study for an Eastern European country, Koytcheva (2006) analyzed Bulgaria and found also a very high and positive correlation between both heterogeneity terms.

The starting point of both processes is the beginning of cohabitation. Cases are censored at the first conception or the first marriage. Censoring occurs also at date of the interview or at the dissolution of the union.

Two intensities are examined: first conception intensity and first marriage intensity. The main mathematical formulas for each event (first conception or first marriage) look as follows:

$\longrightarrow$ for the intensity of a first conception:

$$lnh_{1i}(t) = y_h(t) + \sum_j \alpha_{jh} x_{ijh}(t) + \sum_j \beta_{jh} w_{ijh}(t) + c_h(u_{ih} + t) + z_h(t - v_{ih}) + U_i \tag{6.5}$$

$\longrightarrow$ for the intensity of a subsequent marriage:

$$ln\mu_{1i}(t) = y_\mu(t) + \sum_j \alpha_{j\mu} x_{ij\mu}(t) + \sum_j \beta_{j\mu} w_{ij\mu}(t) + c_\mu(u_{i\mu} + t) + z_\mu(t - v_{i\mu}) + V_i \tag{6.6}$$

The log hazards h and μ at time t (time since the start of cohabitation) of individual i are estimated by the duration dependencies $y_h(t)$ and $y_\mu(t)$ (baseline log-hazard) and a set of fixed and time-varying covariates. The effects of the fixed and time-varying covariates (x and w, respectively) are measured by α_{jh} and β_{jh} resp. $\alpha_{j\mu}$ and $\beta_{j\mu}$. The $(u_i + t)$ are splines that capture the effects of certain covariates that are continuous functions of t. One such duration spline will be the effect of current age of the woman - u_{ih} and $u_{i\mu}$ as the age at union formation. Two further duration splines will be so-called conditional splines or "kick-in splines" $z_i(t - v_i)$. This reflects the possibility that a process may depend on the duration of related processes in addition to itself (Lillard, 1993). For the marriage equation, this spline represents the effect of duration since first conception: it kicks in when

the woman becomes pregnant at union duration $v_{i\mu}$. In the case of first conception the spline represents the effect of duration since first marriage: it kicks in when the women marries at union duration v_{ih}. We also control for *unobserved characteristics* of the population and/or of the individual in our sample by including an extra term as a random variable in each equation in order to capture variation that is not due to the observed characteristics included in the model, e.g. certain value orientations of individuals or norms in society. U_i and V_i are items that pick up any unobserved heterogeneity. They are normally distributed with means 0, variances σ_U^2 and σ_V^2 and a correlation coefficient ρ. We check whether they are correlated with each other to show whether both processes – transition to first conception and transition to subsequent marriage formation – share the same unobserved individual characteristics.

Estimates are produced with the help of the statistical software package aML, version 2.09, developed by Lillard and Panis (2003).

6.3 Data

6.3.1 The German Family Survey

For western Germany, we used the *Familiensurvey* (Familysurvey) of the DJI[34]. It consists of a replicative survey and a panel survey with three waves (1988, 1994 and 2000)[35]. In addition, 225 adolescents between 16 and 17 years of age who were living in the respondents' household at the time of the interview have been questioned. Interviews were conducted between May and November 2000. For our analysis we used the replicative survey which relates to a cross–sectional sample with 8.091 individuals aged 18–55 living in private households, 3,653 men and 4,438 women. The data contains information about dynamics and histories of partnerships and births, employment and education histories, social networks, living conditions, habitation, and attitudes towards partnership, family and society. The sample for western Germany covers 6,613 respondents: 2,973 men and 3,640 women. For this study, we use only the female sample. Most of the variables concerning the timing of an event are monthly given. Data from official statistics of 1999

[34]Deutsches Jugendinstitut/German Youth Institute.

[35]The panel survey consists of 2.002 respondents who are between 30 and 67 years of age.

allow to compare the sample on the basis of basic characteristics such as age, sex and marital status (Infratest Burke Sozialforschung, 2000). Also without using a giving weighting factor, the cross–sectional survey reflects the distribution of the population by age and sex in an acceptable way[36]. However, external validations with the Microcensus showed that the Familiensurvey underestimates the age at first birth for younger cohorts in western Germany as well as the proportion of childless women (Kreyenfeld and Huinink, 2003). For the western German sample, the structure of marital status is in line with the results of official statistics. For a comparison of employment status, the Microcensus has been used. The proportion of western German employees in the sample matches closely those of the Microcensus: 84% compared to 87%. Women display with 63% a slightly lower share of employees compared to 69% in the census (Infratest Burke Sozialforschung, 2000). Unfortunately, we do not have information on the overall response rate in the survey.

6.3.2 The French Study of Family History

For France, we analyze data from the Study of Family History (*Étude de l'histoire familiale* – EHF) – a life-event history survey conducted in association with the census. In the March 1999 population census, 380,481 men and women living in private dwellings filled out an additional schedule on the subject of their "family history" including questions on their origin, children, partnerships, and social history, as well as the languages customarily spoken in their families. The survey covers metropolitan France and is one of INSEE's[37] oldest sample surveys: it has been conducted and coupled with the population census since 1954. Since 1990, it also contains men, before it was restricted to women. As in the German Familiensurvey, we only use the female sample. The EHF is mainly intended to track the emergence of new family forms through a retrospective and biographical questionnaire that reconstructs the demographic history of generations (Cassan et al., 2000). It contains complete birth histories, information on first union and last union formation[38], first job, end of school, highest educational degree, the parental

[36]Women are slightly over–represented with 55% in the sample compared to 49% in official statistics as well as young respondents with 20% compared to 17%.

[37]INSEE=Institut national de la statistique et des études économiques.

[38]The French EHF does not include complete partnership histories since only the first and the last union were questioned. For our type of analysis this is not regarded as a

background and most information derived from the census. Variables concerning the timing of an event are monthly given. The EHF does not only contain a large number of variables, but the size of the sample gives it considerable authority for the study of family dynamics in France. Also the age range is broad: the individuals are between 18 and 105 years of age at the date of interview. The gender ratio is not 1:1 but 3:5, i.e. 234.992 women and 145.498 men. These demographic bias disappears as soon as a given expansion factor is used. The EHF survey, by its sample size and design, is representative at the regional level. The non-response rate is estimated at 20.6 per cent (Toulemon, 2002) which is comparable to other non-obligatory surveys. Low response rates are observed for elder persons, single person who do not live in a couple, persons born abroad and those who did not state their qualification. To adjust for this bias, the survey has been post-stratified and weights have been provided. To test the reliability of the findings at the national level, survey findings have been compared with information from other sources, such as the annual number of marriages and births in the vital records or the French Labor Force Survey. The number of births declared by women in the survey are in accordance to those in vital records. For men, however, births are proportionally too low. Regarding the distribution of marital status, results from the survey are very close the those from the Labor Force Survey, this accounts also for the distribution of marital status by number of children (Mazuy and Toulemon, 2001).

6.4 Events under study

As we described above, we study the transition to direct marriage, transition to first cohabitation, and transition from cohabitation to marriage (see table 6.1). We first study the transition to a first union – either as direct marriage or as non–marital cohabitation. Each woman is assumed to be at risk of entry into a first union from her 15th birthday onwards until the event occurs or until the observation is right–censored (time of interview). When we study the transition to direct marriage, we stop observing the women where they enter cohabitation, and, vice versa, when we study the transition to first cohabitation, we censor the women in cases where they marry directly. The third transition covers the time since the start of first cohabitation to either

problem since we focus on first union formation only.

a subsequent marriage or dissolution or death of the partner or until the observation is right–censored (time of interview).

Table 6.1: Summary of the events under study

Event	Origin of process time	Right censoring in case of not experiencing the event
Direct marriage	Age 15	Interview date Cohabitation
First cohabitation	Age 15	Interview date Direct marriage
Marriage after cohabitation	Start of cohabitation	Interview date Dissolution of cohabiting union/ Death of partner

The definition of cohabitation differs slightly in both data sets. In the French EHF respondents were asked for the dates of cohabitation or marriage when they lived at least half a year within one shared household, with or without being married. In contrast, a cohabiting union in the West German data set is defined closer: instead of six months, a long-term relationship has to last at least one year in which the respondent had to share a common flat with his or her partner. In both data sets, current unions, either cohabiting unions or marriages, are allowed to be shorter than half a year or one year. We do not regard these different definitions as a problem concerning the comparability between both data sets. We consider the step of moving together and sharing a same household as the most important aspect in the process of partnering. Both definitions are therefore assumed to measure the same event, namely the establishment of a consensual union. In addition, in the French survey information on cohabitation is monthly given whereas in the German Familiensurvey data on cohabiting unions – start and end of a cohabiting union – are only yearly given. Since we do

not know whether the start of a partnership concentrates on a particular season (e.g. Spring), we created random numbers for month of cohabitation. In addition, if the start of a non–marital cohabitation and the begin of marriage took place in the same year, no cohabiting union has been implied but a direct marriage. Therefore we only define a union as a non–marital cohabitation if setting up a common household occurs at the latest in the year before the marriage. As a consequence, the number of pre-marital cohabitations is estimated quite conservatively in the German Familiensurvey (see also Klein, 1999).

Besides, in contrast to the Familiensurvey, the current partner in the EHF can live for a certain time in another household due to occupational reasons. We are not able to identify those cases. However, the partner still has to have shared at least six months a same household with the respondent. Therefore, we do not regard this as a problem in our comparative perspective.

6.5 Sample selection

We restrict our analysis to women born after 1944 in both data sets. This seemed to be the best method to make the samples for the two countries comparable. Otherwise our results would have been biased due to a different age structure [39]. The youngest German cohort (born 1982) had just reached age 18 at the time of censoring, the youngest French cohort (born 1980) was age 18 at interview. For the purpose of comparability, we also decided to analyze only those women who were born in the respective country and had the German respectively French citizenship. After excluding cases with missing values on the main variables and some necessary data cleaning (see tables 9.1 and 9.2 in the Appendix A)[40], we obtained a sample of 2,964 German women and 133,800 French women who were single and under the risk of a first cohabiting union or a first marriage respectively. Of those

[39] The oldest cohort in France (born 1893) was age 105 in 1999, therefore we decided to exclude all women born before 1944 in France

[40] Various cases have been deleted before preceding with our analysis, such as missing information on birth year of respondent's child or missing year of union formation even though the respondent states to be married. Also cases with illogical order, such as birth year of respondent after birth year of respondent's child, have been excluded from our analysis. We assume that these mistakes are randomly distributed and that our results do not exhibit any systematic biases.

80.8% have ever been in a first union in western Germany compared to 84.2% in France. For the analysis of subsequent marriage after cohabitation, we obtained a sample of 1.189 German women and 64.049 French women who were in a cohabiting union and under the risk of a subsequent marriage. Of those 64.8% have been married after cohabitation in western Germany compared to 58% in France.

6.6 Covariates

Time–varying covariates

Time–varying covariates, such as educational attainment and enrollment, work (in)activity, calendar period, pregnancy or childbirth are variables that vary with a woman's age. The period of a woman's life starting with age 15 until first union formation or interview has been divided into spells in which values of all time–varying covariates are constant. Time–constant variables are variables that are fixed for the whole observation period for one woman, such as birth cohort, level of religiosity, the experience of parental divorce or parent's educational attainment. Even though the last three variables are not fixed per se, we created them as time-fixed covariates since we do not have information over time for these variables. In the following we describe the construction of the variables and previous empirical research on their impact on union formation behavior. See tables 9.3 until 9.6 in the Appendix for the distribution of the time-fixed and time-varying covariates in absolute and relative numbers.

One of the key variables is *educational attainment*. We take this as an indicator of the career opportunity of the woman. On the basis of ISCED 76 (International Standard Classification of Education) we classified education degrees into four groups:

1. Low degree = No degree or secondary school qualification. For western Germany this category includes women with neither a vocational degree or a university degree (including Volks- /Hauptschulabschluss, Realschulabschluss and (Fach-)Abitur). For France this category includes women with no degree in general schooling and lower secondary education (CEP, BEPC, brevet). We included the German *Abitur*

(general qualification for university/university of applied science entrance) into this category since the working opportunities in Germany are very scare for people without any vocational training certificates or college degrees. The German labor market does not reward general schooling degrees, unless they are combined with formal post–secondary (vocational) or tertiary (academic) education (Kreyenfeld and Konietzka, 2008). This is not the case in France, where occupational education is less common and the Baccalauréat (general qualification for university entrance) is more important (Brauns et al., 1999; Mueller and Shavit, 1998).

2. Medium degree = Vocational certification and partly upper secondary education. For western Germany this category includes vocational training (*Lehrabschluss*) and similar forms of vocational education (*Fachschulabschluss*). Within the French category we included vocational certification such as CAP or BEP and the Baccalauréat.

3. Higher degree = All university degrees or technical colleges. This means university or technical college for western Germany. For France this category includes all post-secondary or tertiary education (university, Grandes Ecoles, doctoral studies, BTS, DUT).

4. Other degree. For western Germany there is an additional category called all other degrees. We do not have this category in France.

For western Germany, educational attainment is measured as a time-varying variable – to be interpreted as the highest level attained at any given point in time. We distinguish between women who are currently in education and those who are currently out of education.[41] Unfortunately, for France we do not have complete educational histories. In order to construct a time-varying covariate for education, we use information on the highest degree level at interview and on the age at the end of education. The French data set includes the question "At what age did you stop regularly attend-

[41] To give an example: A woman finishes school with an Abitur and is 6 months out of the educational system afterwards. She then starts studying at a university. In this case she is coded as *out of education with a low level of education* for six months and after that time she is coded as being *in education*. If she finished university she is coded as being *out of education with a high level of education*.

ing school or university (for the first time)?"[42] Also for people who had no degree by the time of the interview the age at stopping school is available. We assume that people are in education until this date and outside of education afterwards. We categorized the period between age 15 (the start of the process time) and age of finishing school as *in education* and assume that the effect of being in education is the same for all educational groups. Thus, a time–varying education variable with the categories in education, no or low education, medium education and high education has been derived from the imputed histories for France. We are aware that this kind of quasi–time–varying covariate is rather anticipatory (Hoem, 1996; Hoem and Kreyenfeld, 2006; Kravdal, 2004). The education degree measured at the date of interview may not be identical to the degree the women had when she was at risk of a particular event, in our case marriage or cohabitation. It does not provide any information on lower degree levels gained prior to the highest educational level attained at interview and does not account for the possibility of returning to education after a certain period of time. However, we assume that adult education is not common in France; hence, the final educational qualification achieved is a good proxy for social group (Toulemon et al., 2008, p.519). Rates of educational reentry at later ages are low. According to the EU Labor Force Survey, only 2.6% of persons aged 25–64 state that they received education or training in the four weeks preceding the survey in France. This is a very low number compared to countries like Sweden (25.8%), Denmark (19.8%) or the United Kingdom (19.2%) (Eurostat, 2009). Furthermore, Zabel (2007), comparing estimates using imputed and complete educational histories, concluded that the bias caused by using imputed histories did not turn out to be very serious in the case of western Germany. We therefore expect not much bias in our results, using education in such a way.

Studies on the impact of education on union formation analyzing western Germany have found either negative effects of female education on marriage (e.g. Baizán et al., 2003; Brüderl and Diekmann, 1994; Klein and Lauterbach, 1994; Timm, 2006), no clear negative pattern of education (e.g. Hullen, 2003; Nazio and Blossfeld, 2003), and/or found prolonged educational enrollment to be responsible for a delay in marriage (e.g. Blossfeld

[42] Because of missing information on the month of finishing education, we assumed that leaving school/university took place in the middle of the year.

and Huinink, 1989, 1991; Blossfeld and Jaenichen, 1992; Nazio and Blossfeld, 2003; Sommer et al., 2000; Timm, 2006) and to a smaller extend also for a delay in cohabitations (Nazio and Blossfeld, 2003). Baizán et al. (2003) and Timm (2004) found highly educated western German women to enter a non–marital cohabitation more often than less educated women whereas Nazio and Blossfeld (2003) found no clear pattern of the educational attainment level on the adoption of cohabitation. For France, Leridon and Toulemon (1995) found that French women with a higher education marry less, but cohabit more often than women with lower education. This is not only due to the delaying effect of educational enrollment: women with a high level of education who completed their studies display higher risks of cohabitation and lower risks of marriage compared to women with a low level (Leridon and Toulemon, 1995, p.97). Kennedy (2004) detected significantly lower hazards of marrying for college–educated French and western German women compared to less educated women and no significant effect of educational attainment on cohabitation for both countries. However, she also found a trend toward a more rapid rise in cohabiting unions among less–well educated women compared to higher educated women (Kennedy, 2004). Le Goff (2002) observed a higher risk for marriage after cohabitation for highly educated women compared to women with lower education in France. In the more traditional context of West Germany, he observed the opposite effect: lower educated women had a higher risk of subsequent marriage than higher educated women.

Another important covariate in our analysis is the *activity status* of the respondent. This variable does not only display the respondents' employment status but also indicates whether persons spend their time receiving education or not. For Germany, we distinguish between six categories: *1)* in education (secondary school, vocational training or university), *2)* full–time employment, *3)* part–time employment, *4)* unemployment, *5)* maternal/parental leave, *6)* inactivity and *7)* never employed. When there is an overlap of activities, for example being in education *and* being employed, we assigned the following hierarchy: 1. employed full–time, 2. schooling (in education), 3. employed part–time, 4. unemployed. Due to data restrictions, we are not able to differentiate the activity status in France in such a precise manner as we did for Germany. Within the EHF, people were asked

about the age of their first job and whether they stopped working[43]. If they are not currently at work they had to state in which year they stopped working. Moreover, respondents could state whether they interrupted their job for a period of two years or more. However, only two such interruptions were recorded within the data set and only the year of interruption is available. Therefore, for France we distinguish between four categories: *1)* in education, *2)* employment, *3)* out of employment and *4)* never been in employment. We are aware that for both countries the category *in education* appears in both variables, educational attainment as well as activity status. That's why we created dummy variables for activity status. The dummy variable "in education" in our activity variable is excluded when we analyze both variables in one model. In that way, multi–collinearity can be avoided (see also Gerster et al. (2007) who used the same procedure for partnership status and partner's education). Previous research on the effect of employment on union formation behavior in western Germany came to mixed results. Nazio and Blossfeld (2003) found a clear negative effect of female employment on first marriage formation: non-employed women are more likely to marry than employed women. The authors did not observe significant effects of being employed or non-employed for entry into cohabitation. Also results from a study of Baizán et al. (2003) indicate a negative effect of employment on the risk of union formation, regardless of the type of union. However, they also observed a strong positive impact of work experience on both union formation events, especially in the case of marriage. Sommer et al. (2000) found western German women who were neither studying nor working to be more likely to marry than employed women. Kurz et al. (2001) found part–time employed women to marry somewhat more likely than full–time employed women but found no significant results for not employed women. Contrary to that study, Hullen (2003) found full–time employment to have positive effects on the propensity to marry for western German women.

As a third time–varying covariate we include *pregnancy–motherhood–status* in our model. This variable measures whether a woman has a child or not. If she is pregnant the month of the pregnancy has been grouped into three

[43]Because of missing monthly information, we randomly estimated month of job interruption.

categories, and if she gave birth it measures also the age of the child. We backdate the date of the birth by nine month to detect the influence of a conception and pregnancy on first union formation. We can only make a statement on completed pregnancies but not on abortions or miscarriages. Five categories can be distinguished: *1)* childless, not pregnant, *2)* childless, pregnant until the third month *3)* childless, pregnant from the third to the sixth month, *4)* childless, pregnant from the sixth to the ninth month, *5)* mother, child younger than 6 months and *6)* mother, child older than 6 months. For France, for some cases the birth month of the child was missing[44]. For those we assumed that the birth took place in June of the year. For western Germany, previous studies found a remarkable increase in the propensity to enter a union during the period of pregnancy, leading much more often to marriage than to cohabitation (Baizán et al., 2003). Women who were already cohabiting also displayed high marriage risks during pregnancy. However, after the child is born, marriage rates dropped to a comparatively low level (Blossfeld et al., 1999; Le Goff, 2002). Also in France, a spike in marriage intensities is found at the beginning of a pregnancy for cohabiting women. Like in western Germany, it decreases at the end of pregnancy and during the child's first years, however, this decrease becomes lower in the case of younger cohorts (Le Goff, 2002).

To reveal changes in union formation behavior over time, for some models we included current *calendar time* in our study. The earliest calendar time in which a women becomes 15 years old and starts to be under observation is 1959 for both countries. This means that we can follow changes in the transition rates from the end of the 1950s to May 2000 for Germany and from the end of the 1950s to March 1999 for France. For the analysis of first union formation we divided calendar time into sub–periods. For Germany and France the reference period is *before 1970*, afterwards we used division points every five years.

[44]This applied to 5208 cases or 1.4 % of the survey population.

Time–constant covariates

Next to calendar time, we analyze the effect of cohort changes on first union formation which might be very reasonable when studying the diffusion of cohabitation over cohorts. For the variable *birth cohort*, we grouped women into four categories: *1)* 1944–1954, *2)* 1955–1964, *3)* 1965–1974 and *4)* 1975–1980 (France)/1975–1982 (Germany). Nazio and Blossfeld (2003) found a monotonically increasing negative effect across birth cohorts on entry into marriage for western German women. There, the progressively later entry into marital unions across cohorts was only initially replaced by a more intensive entry into cohabitation, but then was followed by a lower rate of entry into both types of unions (Nazio and Blossfeld, 2003). Also for western Germany, Baizán et al. (2003) found a strong increase in the hazard of cohabitation over cohorts and a reversed u-shape effect for the hazard of direct marriage with a peak for the birth cohort 1955-1964. For the transition to subsequent marriage after cohabitation, Billari and Kohler (2000) found a shift towards postponing marriage after the beginning of non–marital unions for western German women. Previous research for France found that women born before 1955 displayed stable marriage intensities, while cohabitation rates already increased. For the 1956-1965 cohorts cohabitation increased dramatically, compensating for the decline in marriages (Leridon and Toulemon, 1995).

Further variables, which reflect in particular the respondent's upbringing and parental family characteristics, have only been available for Germany:

We study the impact of *parent's educational attainment* on union formation. We assume that parent's level of education is a good predictor of their openness towards modern living arrangements (Schröder, 2008). We distinguish between *1)* low, *2)* middle, and *3)* high levels of education, defined the same way as we did for the individual level of education described above. Previous studies for western Germany found father's social class to influence women's marriage risk negatively: women from unskilled manual worker families marry much earlier than women from all other social classes, even after having controlled for the effect of the respondent's educational attainment (e.g. Blossfeld and Jaenichen, 1992).

We also control for the experience of *parental divorce* during childhood. Such an event in children's life might lead to an opposition to marriage and a preference of nontraditional unions such as cohabitation (Teachman, 2003). Whether the respondent experienced a parental divorced until age 16 or not was coded as *1)* yes or *2)* no. For western Germany, Le Goff (2002) found no effect on marriage intensity for already cohabiting women.

Besides we control for the *level of religiosity* in Germany by constructing a variable out of two questions: whether the respondent belongs to a religious community or not and if yes, how often she attends church service. Those who are religious and attend church services at least once a month are coded as *religious*. Women who belong to a religious community but do only attend church services several times in the year or less are coded as *somewhat religious*. And women without any religious background or those who never go to church are coded as *not religious*. In earlier studies, being religious was found to increase the risk of entering marriage for western German women and simultaneously lowering cohabitation rates compared to non–religious women (Nazio and Blossfeld, 2003; Sommer et al., 2000; Timm, 2004).

For western Germany, information on the educational attainment of the woman's partner is only available for the time at the start of the union. Therefore we can only control for partner's education when we analyze the transition to subsequent marriage. Unfortunately, we can not cover changes in his educational level during time at risk. Therefore we must be careful with the interpretation of this variable. We can only make a statement on the influence of partner's education on subsequent marriage formation at the *begin of the cohabitation*. We distinguish between *1)* in education, *2)* low, *3)* middle, *4)* high and *5)* other levels of education, again defined the same way as we did for women's educational attainment.

Chapter 7

Empirical findings

7.1 Introduction

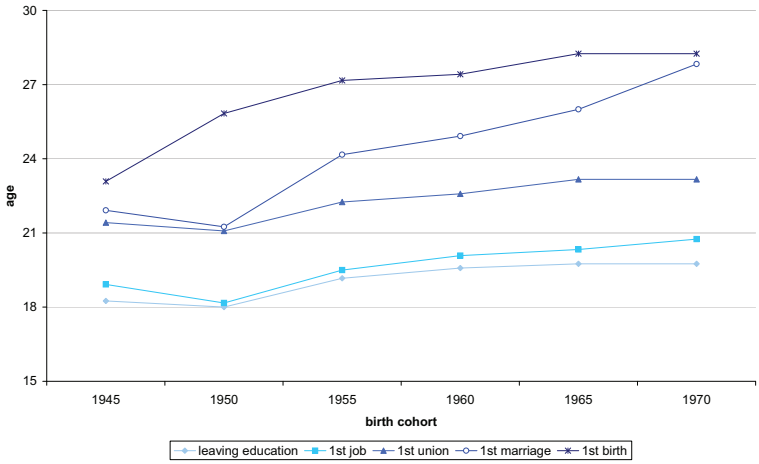
The structure of the further empirical analysis has the following order: Before discussing the results of our multivariate empirical analysis, we present some of the main descriptive results to characterize first union formation behavior in both countries (section 7.2). In a second step, we decided to analyze France and western Germany separately (sections 7.3 and 7.4). First, we estimate non–parametric models for investigating the competing risk of first union formation in more detail. Cumulative incidence curves for competing events are analyzed – in our case transition to cohabitation vs. direct marriage. We then estimate parametric survival models namely proportional hazard regression models for the two competing risk transitions, as explained in chapter 6.2.

7.2 Descriptive analysis

First union formation

Figures 7.1 and 7.2 display the median ages at certain life events for western German and French women of different generations. We analyze women born between 1945 and 1970. We do not consider women born after 1970 since they were younger than 30 years at interview and are therewith partly still at risk for some of the events we investigate.

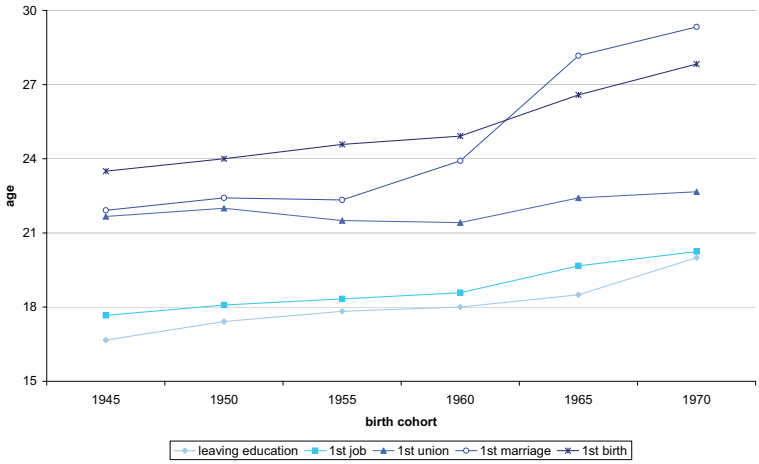
Figure 7.1: Median ages for certain life events, western German women, selected birth cohorts (n=2.964[1]), survival–time data analysis



Source: Familiensurvey 2000, own calculations

[1]Only for median age at leaving school: n=2.827 due to 137 cases of missing information of end of school.

Figure 7.2: Median ages for certain life events, French women, selected birth cohorts (n=133.800), survival–time data analysis



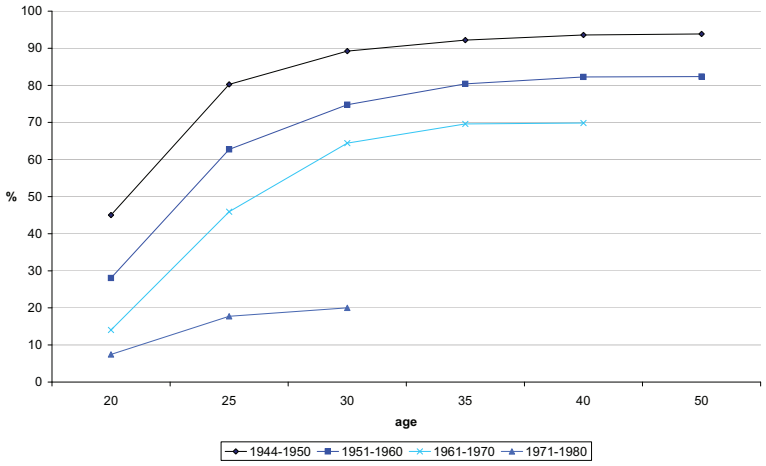
Source: Étude de l'histoire familiale 1999, own calculations

The median age at leaving school or university[45] for the first time and at having the first job has been increasing over generations in both countries – from around 18 to 20 years of age. Leaving school always precedes the first employment. Also the age at first union formation (cohabitation or marriage) increased over cohorts. While age at first union and age at first marriage has been the same for women born in 1950 in western Germany and France, women born afterwards are now older at first marriage than at the beginning of their first union. This means that a first union does not necessarily involves marriage anymore but that for most of the women unmarried cohabitation precedes marriage formation in both countries. Starting with women born after 1950, a sharp increase in the age at first birth can be observed: in both countries the age at first birth has risen remarkably, from less than 24 years to 28 years for women born in 1970. Remarkable is the fact that French women are nowadays older at their first marriage than at the birth of their first child – an indicator that non–marital birth rates have been strongly increasing (see again chapter 2). We cannot observe this crossover for western Germany, where the traditional pattern of being married before having a child still preserves. Moreover, we can conclude from the analysis of this data that the gap between union formation and age at first birth increased in both countries – women remain longer childless within union. These changes in the median ages at important events in the life course of French and German women reveal that union and family formation are in an ongoing postponement process. One reason for this is the prolonged stay in the educational system and the later start into working life of young adults. Being in education is mostly considered to hamper union formation and leads to a postponement of childbearing (Blossfeld and Huinink, 1991).

The next two diagrams 7.3 and 7.4 display the cumulative percentage of women who were ever married during a first union at certain ages. We carried out a descriptive analysis by calculating the cumulative percentages of married women by age at female first marriage within a first union and by selected birth cohorts. We can observe two main developments.

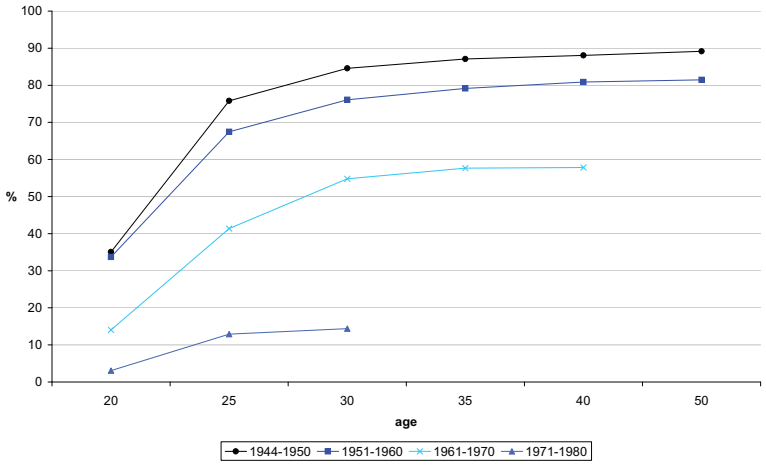
[45] For western Germany this also includes women leaving the vocational system for the first time.

Figure 7.3: Cumulative percent ever entering first marriage within a first union by selected ages and birth cohort, western German women (n=2.964), frequency–tables analysis



Source: Familiensurvey 2000, own calculations

Figure 7.4: Cumulative percent ever entering first marriage within a first union by selected ages and birth cohort, French women (n=133.800), frequency–tables analysis

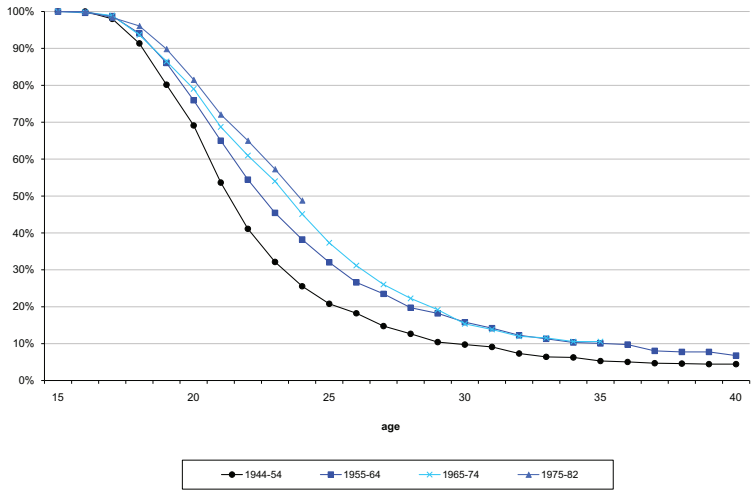


Source: Étude de l'histoire familiale 1999, own calculations

First, women born in the 1960s marry much later than women born during the 1940s, who were in their 20s during the 1960s, at the so-called "Golden age of marriage" (van de Kaa, 1987, p.11). For example, while 76% of all French women born between 1944 and 1950 were married at the age of 25, women born between 1961 and 1970 have been married only to 41% in the same age group. The proportion of ever married women in western Germany is higher, but fell also: from 80% to 46%. Second, they are not only older at marriage but they also remain more often unmarried within their first union than older cohorts, even at older ages (88% vs. 58% at age 40 in France and 94% vs. 70% at age 40 in western Germany).

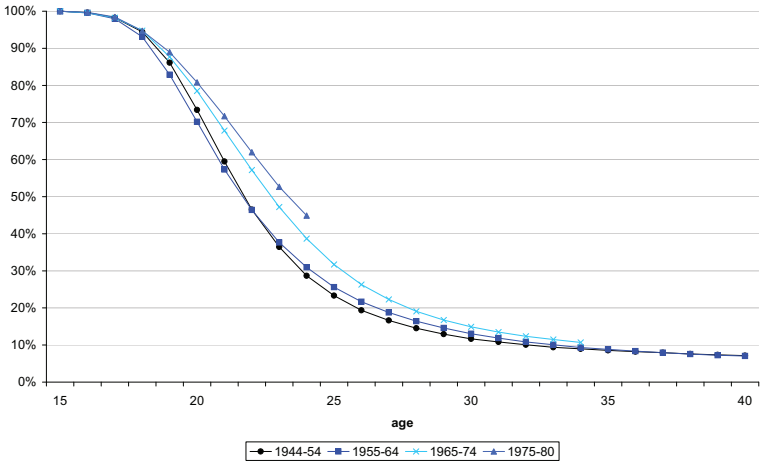
This does not mean that women in both countries stay more often single. The proportion of women who remain single until older ages (age 40+), is more or less constantly low over time. In figures 7.5 and 7.6, we present the Kaplan–Meier survival curves for the transition to first union by birth year of the respondent, irrespectively of the type of union. Only 7% (birth cohort 1944-54) to 10% (birth cohort 1965-74) in France and 5-11% in western Germany do not have any binding relationship at all at age 40. For cohorts until 1974 we do not seem to find strong indicators of a growing loss of emotional bindings. However, around half of the women born after 1975 have not been within a first union yet. Since they were very young at interview – between 18 and 24/25 years – we do not know whether they will remain single more often than older generations. What we can say is that women postpone union formation more and more: from 22 years for women who were born between 1944 and 1954 to 24 years for the youngest birth cohort in both countries. German and French women may start later but they do not forego stable relationships. The only difference is that nowadays the majority starts a first union within cohabitation and only a minority marries directly.

Figure 7.5: Kaplan–Meier estimation for the transition to first union by birth year of the women, western Germany (n=2.964)



Source: Familiensurvey 2000, own calculations

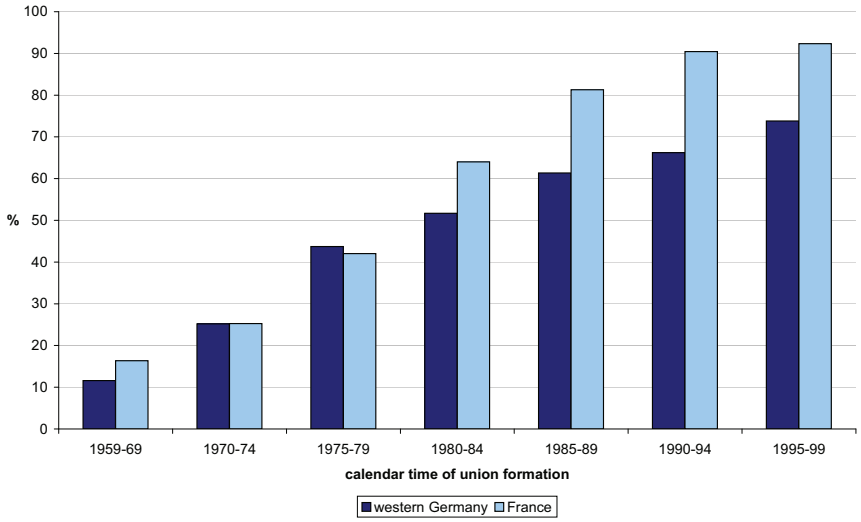
Figure 7.6: Kaplan–Meier estimation for the transition to first union by birth year of the women, France (n=133.800)



Source: Étude de l'histoire familiale 1999, own calculations

Therefore we display the proportion of first union by type of union (either cohabitation or direct marriage) across calendar year of union formation in western Germany and France. In both countries, the proportion of unions that began as non-marital cohabitation increased over time. In the 1960s and the beginning of the 1970s it was usual in both countries to start a union directly with a marriage. During the end of the 1970s, the proportion of non-marital cohabitations was even higher in western Germany than in France. After the beginning of 1980s cohabiting unions became the majority of first unions in both countries. However, France experienced much greater changes during the 1980s than western Germany: while direct marriages represented around 50% of all first unions in the beginning of the 1980s, direct marriages represented only 1 first union out of 10 at the end of the 1990s. For Germany this number increased from around 60% to 74% (Figure 7.7).

Figure 7.7: Proportion of first unions that started as cohabitation across calendar year of union formation in western Germany[1] (n=2.398) and France (n=113.477), frequency–tables analysis

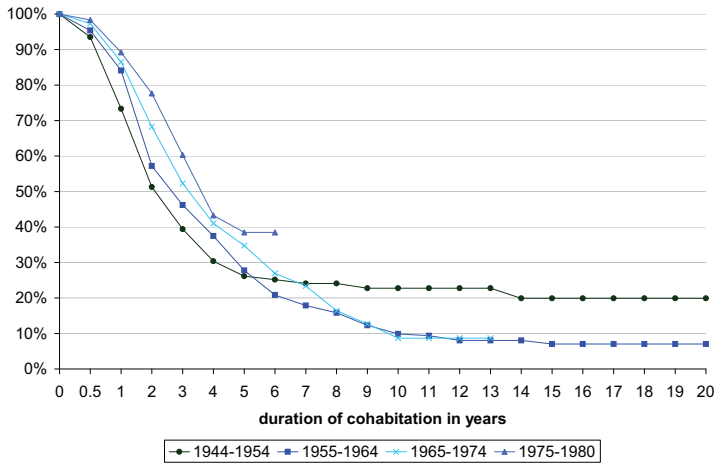


Sources: Familiensurvey 2000, Étude de l'histoire familiale 1999, own calculations

[1] 1961-69 and 1995-2000

Living in a consensual union does not only imply the beginning, but also remaining in that form of union. As a first step, we present the Kaplan–Meier survival curves[46] for the transition from cohabitation to subsequent marriage by birth year of the respondent (Figures 7.8 and 7.9). Cohabiting unions become more stable over cohorts. While half of the western German women born between 1944 and 1954 are still cohabiting two years after they entered their first union, younger women live now twice as long in consensual union than older women. Western German women who were born between 1965 and 1974 are still in their first cohabiting union four years after they have moved together. Women who entered cohabitation after 1975 are not older than age 25 at date of interview. Therefore it is difficult to make a statement on their subsequent marriage formation behavior since a great part of the younger women might enter their first union later in life.

Figure 7.8: Kaplan–Meier estimation for the transition to subsequent marriage by birth year of the women, western Germany (n=1,189)



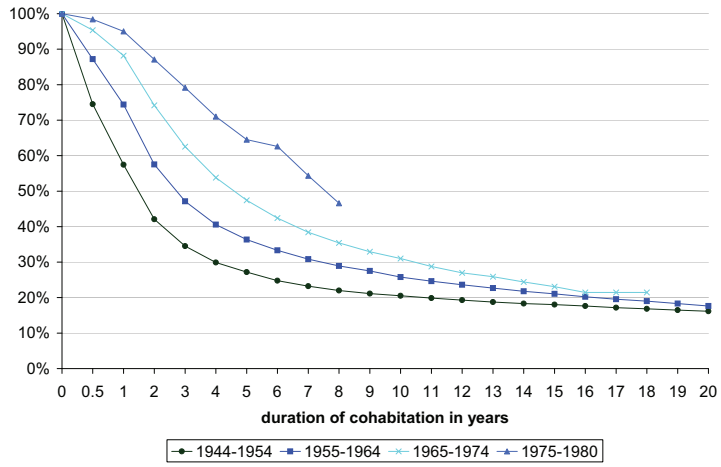
Source: Familiensurvey 2000, own calculations

In France, cohabiting unions are longer lasting than in western Germany. Older women show a similar pattern: they marry shortly after they have moved together. However, women from younger birth cohorts remain longer in non–marital cohabitation: After five years 50% of the French women

[46] We treat women who separate during the time of observation as censored. Also women who remain in cohabitation until interview date become right–censored. Therefore we can only make a statement on the duration of cohabitation until marriage and cannot say how long a woman remains in a non–marital cohabitation overall.

born between 1965 and 1974 are still cohabiting. This time increases for the youngest cohort to eight years after establishing a non–marital partnership. In western Germany as well as in France, the great majority marries after cohabitation (around 92% in western Germany and 83% in France). In contrast to western Germany, this occurs much later in France.

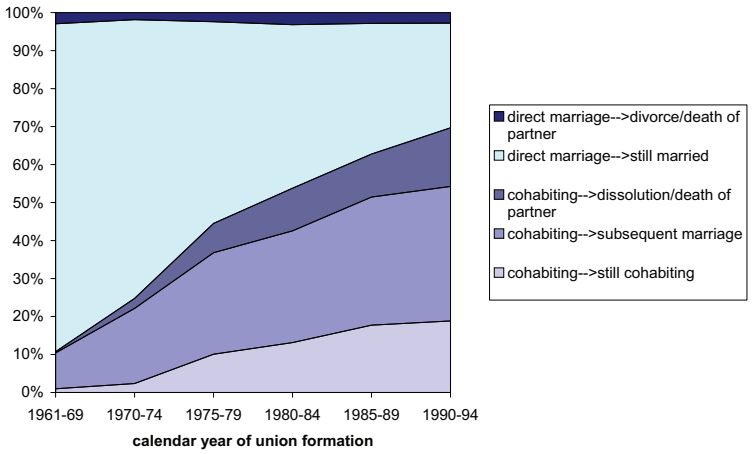
Figure 7.9: Kaplan–Meier estimation for the transition to subsequent marriage by birth year of the women, France (n=64,049)



Source: Étude de l'histoire familiale 1999, own calculations

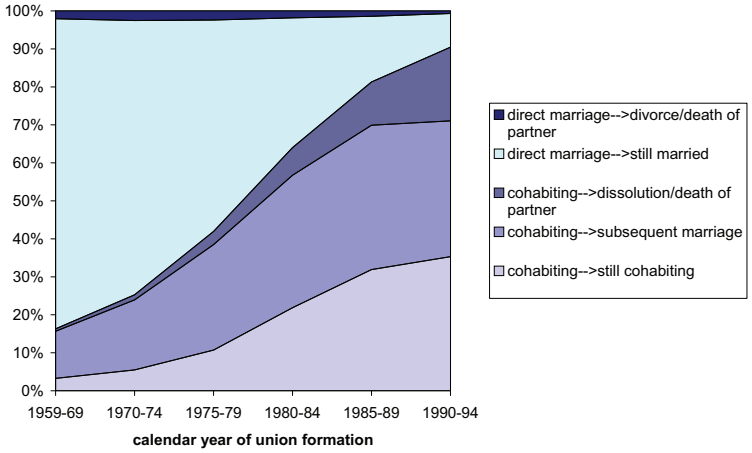
In a second step, we take a look at the outcome of women's first unions by calendar year of union formation. Since survival analysis can only give evidence on women who married after cohabitation, the following graphical representation also includes separation after cohabitation as well as the development of direct marriage.The cohabitations entered during the 1960s and early 1970s were not lasting ones: five years after they started, 88% in western Germany and 76% in France had become marriages, 3 resp. 4% were dissolved, and 9 vs. 20% were still ongoing (Figures 7.10 and 7.11). During the 1970s, when unions more frequently began as cohabitations, they were still quickly converted into marriages. Between 1980 and 1984 the proportion of cohabitations who did not split up or were converted into marriages after five years increased to one quarter for women who entered their first union in western Germany and up to 34% for the same union cohort in France. The unions begun between 1990 and 1994 suggest that cohabitation became a more permanent style of living, especially for French women.

Figure 7.10: Outcome of western German women's first union after five years. Percentage distribution by mode of entry (cohabitation or marriage) and by outcome (n=2.406), frequency–tables analysis



Source: Familiensurvey 2000, own calculations

Figure 7.11: Outcome of French women's first union after five years. Percentage distribution by mode of entry (cohabitation or marriage) and by outcome (n=112.611), frequency–tables analysis



Source: Étude de l'histoire familiale 1999, own calculations

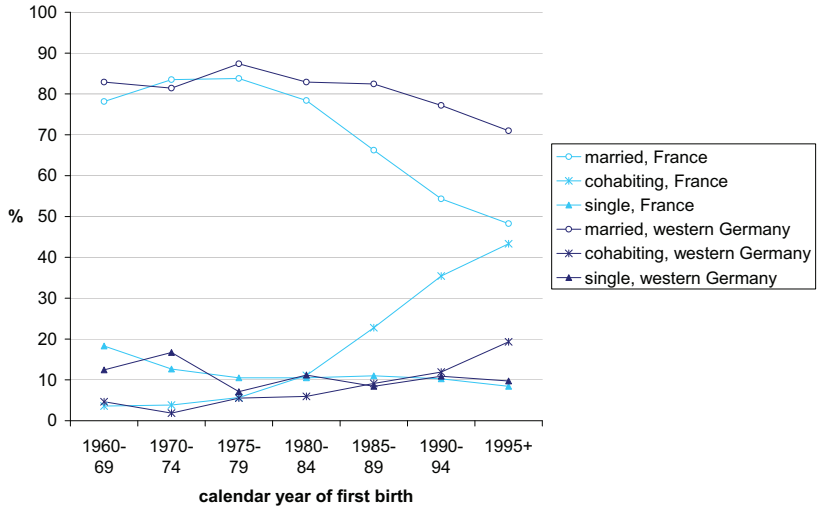
Almost 40% in France were still living in cohabitation five years after they started living in an unmarried union. The respective proportion for western German women is 27%. However, cohabitations also became more fragile: after five years 22% of cohabiting couples in both countries had split up, compared to 11% (western Germany) and 5% (France) of those formed in the first half of the 1970s. In France, and for some part also in western Germany, cohabitations are becoming more lasting and more frequent. Living as a couple no longer requires marriage. Even though the number of cohabiting unions and their duration increased also in western Germany, marriage is still the most dominant form of living.

Childbearing within cohabiting unions

The change in union formation behavior is also reflected in the proportions of non–marital births: 43% of births in France and 19% in western Germany occurred outside of marriage in the year 2000 (see also chapter 2). Whether children of unmarried parents were mostly born within partnerships or to lone mothers is displayed in figure 7.12 where we display the union status at first birth for first unions only. We simply compare changes in percent of first births within first union by union status over time[47]. In both countries the decline in the share of marital births started in the beginning of the 1980s. At the same time births within cohabitations increased. There are great differences in the magnitude of this development. In western Germany this increase has been very gradually and first births are still marital births in the majority of cases: in the last half of the 1990s 71% of all first births in a first union were born within marriage, only 19% are born to cohabiting parents, and 10% to single mothers. In contrast, the proportion of first birth within cohabitation in France is almost as high as the proportion of marital birth: 43% vs. 48%. First births of single mothers have a share of 9%. In France, starting a family no longer requires marriage. Besides, the great majority of non–marital births in France is born within partnerships: only 16% of all non–marital first births born between 1995 and 1999 were births of lone mothers.

[47] See also Perelli-Harris et al. (2009) for a cross–country study of descriptive trends in non–marital childbearing from 1970s to the early 2000s.

Figure 7.12: Union status at first birth by calendar year of birth, only first unions, western German mothers (n=1.779) and French mothers (n=90.539), frequency–tables analysis



Sources: Familiensurvey 2000, Étude de l'histoire familiale 1999, own calculations

On the contrary, in western Germany one third of all first non–marital births belonged to single mothers, twice as much as in France.

Summary

After the presentation of the descriptive results, we arrive at the conclusion that the transition to a partnership is in an ongoing process of demographic upheaval in both countries. This process is far more advanced in France than in western Germany. Even though in both countries the ages at important life events in the transition to adulthood increased and most of the couples still prefer living in a partnership instead of remaining single, we found remarkable differences between the different types of unions and the preference of marriage at childbirth. Non–marital cohabitation is replacing the supremacy of marriage in France: the great majority of French women starts their first union not as marriage but as cohabitation – this development is observed from the period perspective as well as for different generations. While cohabitations were quickly followed by marriage in the 1970s, cohabitations became a more lasting lifestyle during the 1980s

until today, also because the birth of a child no longer demands marriage. Nowadays, almost all women begin their first union as a cohabitation, while direct marriages became rare. Consensual unions in France seem to become more an alternative to marriage than cohabiting unions in Germany. Nine out of ten unions begin outside of marriage, 40% are still living in cohabitation five years after the beginning of their partnership and more than 40% of first birth occur to unmarried parents, most of those to cohabiting couples. In western Germany cohabiting unions also increased drastically, but unlike France they are much quicker converted into marriage, only 27% are still living in cohabitation five years after partnership formation. Also childbirth still primarily takes place within marriage. Non–marital births have increased also in western Germany, but to a much lower extent than in France and also a higher proportion of those births occurred to single mothers than to cohabiting mothers in western Germany.

On the basis of these very first results and relating to Heuveline's and Timberlake's terminology (Heuveline and Timberlake, 2004), we would also classify France as a country where cohabitation can be viewed as an *alternative to marriage* while western Germany can be grouped to the category in which cohabitation leads to marriage (a *stage in the marriage process*).

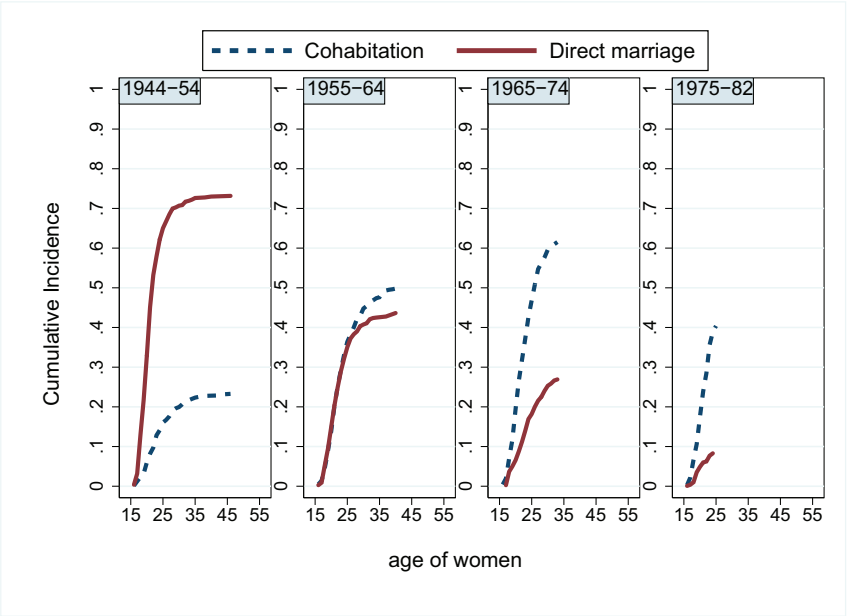
7.3 First union formation in western Germany

7.3.1 Cumulative incidence curves of first union formation in western Germany

We estimate cumulative incidence curves for the transition to cohabitation and direct marriage to display changes in union formation over birth cohorts and by age of the women in western Germany. We take advantage of the *stcompet* command in STATA 10 that allows calculation of the cumulative incidence in the presence of competing risks. The cumulative incidence is a function of the hazards of all the competing events and not solely of the hazard of the event to which it refers (Coviello and Bogges, 2004). In our example, one should interpret the first graph in figure 7.13 in the following way: around 72% of all women born between 1944 and 1954 have been married directly, 23% did cohabit first and around 5% have not been in a first union at all. Besides, women who started their first union as unmarried cohabitation were a bit older than those who married directly. In the follow-

ing birth cohorts, more and more women cohabited. Birth cohort 1955-1964 is the first cohort in which more women started their first partnership by cohabitation than by marriage. At the same time women get older at their first union, regardless of the type of union.

Figure 7.13: Cumulative incidence of cohabitation and direct marriage for grouped birth cohorts, western Germany (n=2.964)



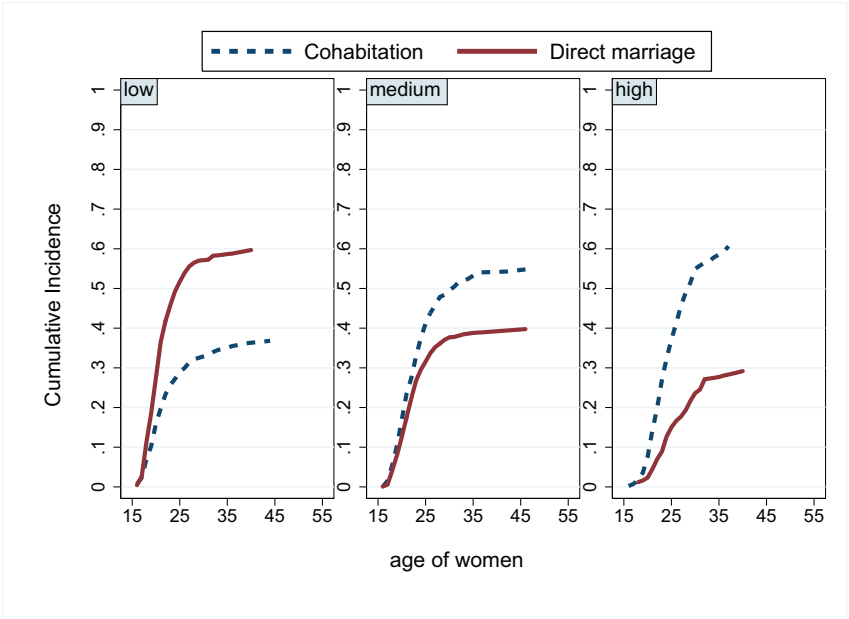
Sources: Familiensurvey 2000, own calculations

The effect we are most interested in is the effect of education on first union formation. Therefore, we display the cumulative incidence curves for transition to cohabitation and direct marriage by level of education and age of the women. Education in this case is displayed as a time–constant variable measuring the first school graduation. The categories differ from the time-variant covariate as follows:

1. No or low degree = No degree or Volks-/ Hauptschulabschluss (35%),
2. Medium degree = Realschulabschluss (41%),
3. Higher degree = Abitur or Fachhochschulreife (general qualification for university/university of applied science entrance) (24%)

This variable is a very good proxy for overall educational outcome since the tripartite school system in western Germany is very selective in a way that it determines future educational outcomes[48].

Figure 7.14: Cumulative incidence of cohabitation and direct marriage for first school graduation, western German women (n=2,920[1])



Sources: Familiensurvey 2000, own calculations [1] We restrict this analysis to women who have already finished their first schooling. Therefore 44 respondents were deleted because they were still enrolled at school at interview.

In our example, one should interpret the first graph in figure 7.14 in the following way: 60% of all women with a low education have been married directly, 38% did cohabit first and around 2% of the less qualified women have not been in a first union at all. Western German women with a *Realschul*–degree are more likely to cohabit first (54%) than to marry directly (40%). Women with the highest school graduation show the highest cohabitation rates: around 60% of the highly educated western German women start a first union as non–marital cohabitation, 30% marry directly and 10% have not been in a first union until interview date. One also observes a clear postponement effect for women with an *Abitur* or *Fachabitur* in the process of first union formation: they are older at first union formation – especially

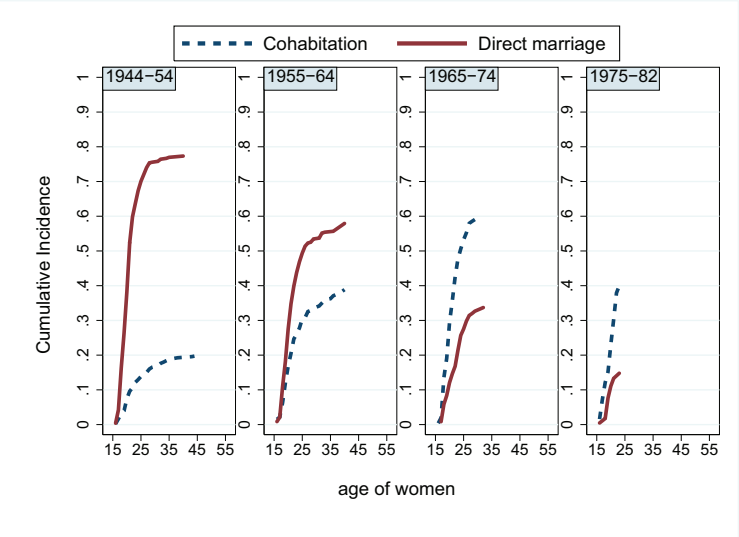
[48] In chapter 4.4.1 the German school system is described more in detail.

at entry into direct marriage – compared to women with a lower degree.

The further question of interest is whether the increase in cohabiting unions since the 1980s was more pronounced in certain educational groups. We display again cumulative incidence curves to display changes in union formation over the level of education and by birth cohort. As in our former figure education is displayed as a time–constant variable measuring the first school graduation.

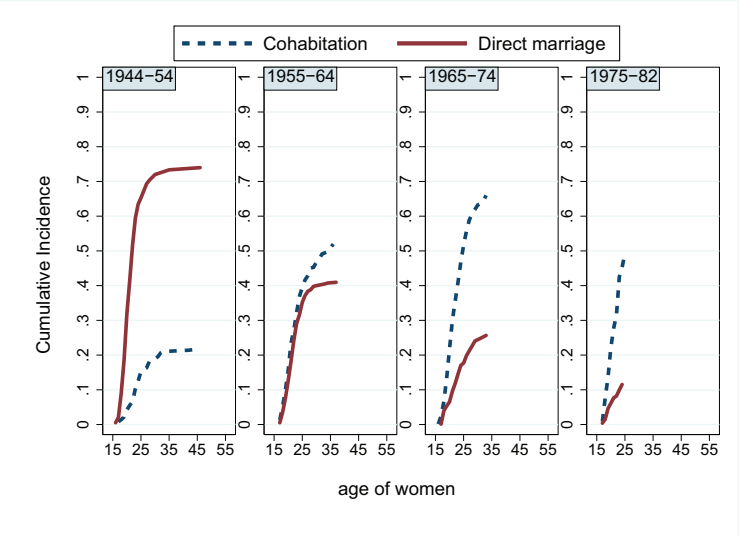
Figure 7.15 represents the cumulative incidence curves for cohabitation and marriage of women who graduated from school with no degree or a *Hauptschul*–degree over birth cohorts. We find that the majority of the oldest birth cohort enters their first union as marriage. 78% of the lower educated western German women who were born between 1944 and 1954 married directly. Cohabitation began to increase for younger women, the cross–over appeared for women born 1965–74 who more often entered non–marital cohabitation (60%) as first union than direct marriage (32%). Figure 7.16 represents the cumulative incidence rates for cohabitation and marriage of women who graduated from school with a *Realschul*–degree over birth cohorts. Women with a *Realschul*–degree who were born between 1944 and 1954 behaves very similar to the oldest cohort of the low educated women: Direct marriage is the most common type of first union with around 73% of women who married directly. Contrary to the former group, already medium educated women from the second–oldest birth cohort, 1955–1964, chose non–marital cohabitation as the preferred type of first partnership. Also in the two youngest cohorts, cohabitation is much stronger pronounced for women with a *Realschul*–degree than for less qualified women. The picture for women with *(Fach–)Abitur* differs immensely from the ones of the other educational groups. Highly educated women who were born between 1944 and 1954 experienced a non–marital cohabitation as their first partnership almost as often as a direct marriage (50% vs. 42%). They also display a higher share of singles than women with lower education. All cohorts afterwards enter first union as non–marital cohabitation more often than as direct marriage. The youngest cohort, women who are between 18 and 25 years at interview, live exclusively in consensual unions.

Figure 7.15: Cumulative incidence of cohabitation and direct marriage for women with no degree or *Hauptschul*–degree as first school graduation by grouped birth year of the woman, western German women (n=1,029)



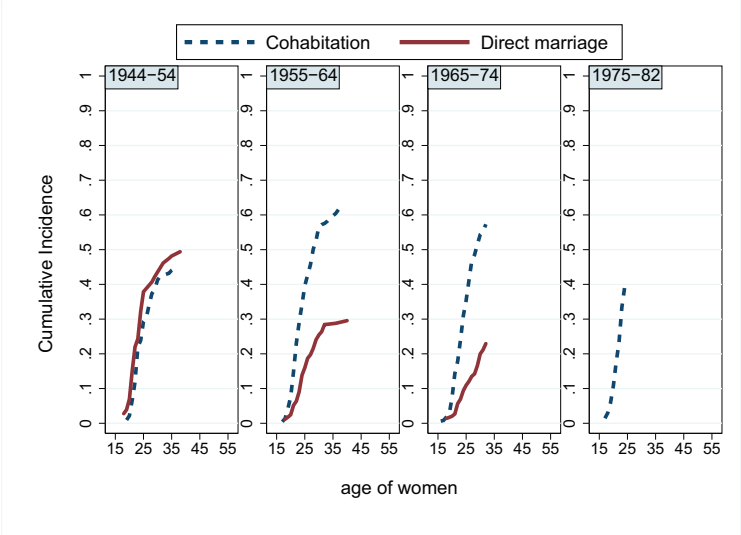
Sources: Familiensurvey 2000, own calculations

Figure 7.16: Cumulative incidence of cohabitation and direct marriage for women with *Realschul*–degree as first school graduation by grouped birth year of the woman, western German women (n=1,185)



Sources: Familiensurvey 2000, own calculations

Figure 7.17: Cumulative incidence of cohabitation and direct marriage for women with *Abitur* or *Fachhochschulreife* as first school graduation by grouped birth year of the woman, western German women (n=706)



Sources: Familiensurvey 2000, own calculations

If we calculate for each educational group the proportion of women entering first union as cohabitation compared to women ever entered a first union within this group, starting with the birth cohort 1965–74 we find an equal share of medium educated women who cohabited instead of married directly (72% vs. 71,6% for women with *Abitur*). Women with a *Realschul*–degree who are between 26 and 35 years at interview, enter first union as often as non–marital cohabitation than women with *Abitur*.

From this analysis, we conclude that women with higher education have been the forerunners of cohabitation. For the younger cohorts an adoption of first union formation patterns can be observed: the proportion of women cohabiting in each educational group has been increasing over time and differences between educational groups became less. However, low educated women from the youngest birth cohort still marry more often directly compared to better educated women whereas women with a high education are more likely to cohabit or to remain single compared to less educated women.

7.3.2 Event history analysis of first union formation in western Germany

To take into account the influence of personal characteristics as well as social and family background on the changes in the patterns of first union formation in western Germany, we performed an event history modelling which is presented and discussed in the next section. Since there are two possible destinations, namely entry into direct marriage (marriage without previous cohabitation) or starting a non–marital cohabitation, we use a competing risk framework. At the moment women enter first union by marriage, they are not exposed to the risk of starting a first union by unmarried cohabitation. Similarly, women forming a first union by cohabitation, are no longer exposed to the risk of marrying directly. Where neither cohabitation or direct marriage occurs, the respondent's life history becomes censored at the date of interview. The advantage of such kind of analysis compared to the calculation of cumulative incidences is the fact that 1) it can control for other characteristics of the woman, 2) variables can be included as being time–varying over the life of women instead of being constant (such as women's educational attainment) and 3) it is possible to interact explanatory variables. One disadvantage of this procedure is that it does not sufficiently separate the factors which affect the timing of union formation from the factors which affect the final probability of forming a partnership: timing and quantum is "mixed" (Kreyenfeld, 2001). This aspect should be kept in mind, especially with regard to the interpretation of the impact of women's education on union formation.

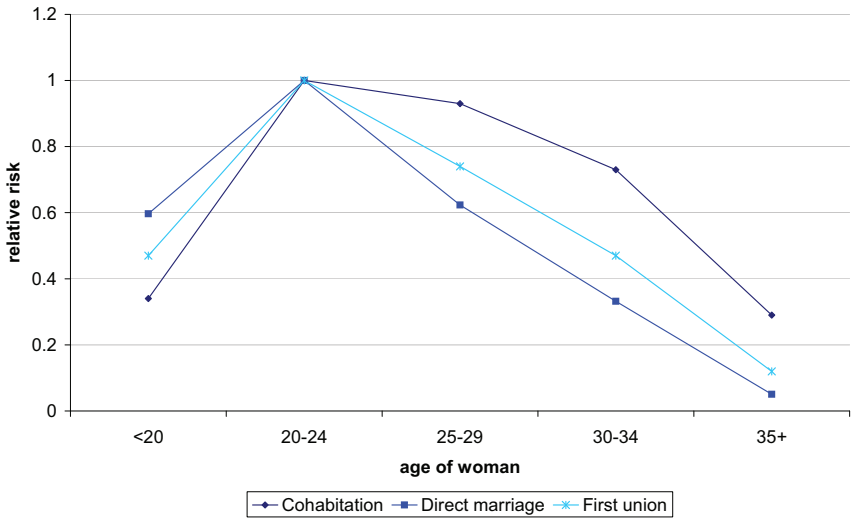
In our event history modeling for the transition to first union in western Germany, we run different models in which we introduce the dependent variables step-by-step to detect how developments over calendar time might be influenced by the impact of explanatory variables. We start with a simple model (Model 1) where the baseline (age of the woman) and the birth cohort is included. We then gradually add the rest of the variables: variables measuring the social background (Model 2), current education (Model 3), activity status (Model 4), and pregnancy–motherhood–status (Model 5). We present the results of the hazard models in Tables 10.1 (transition to first cohabitation) and 10.2 (transition to direct marriage) in Appendix B.

These models contain an overview of all variables whereas in the following paragraphs we will describe and discuss each of the covariates separately to concentrate on each of the variables specifically. Additionally, interactions will be presented when applicable.

Age patterns by type of first union

Before we describe the impact on union formation of the major covariates, we will discuss the shape of the basic process. In Figure 7.18 we display the baseline intensity of the transition to first union for western Germany – for direct marriage, for cohabitation and for all first unions regardless of the type of union. The highest intensity for living in a first union is between ages 20 and 24. However, relative risks for cohabitation are higher in older age groups compared to direct marriage. While direct marriage intensities show a clear peak in age group 20–24, age is more broadly distributed for women who entered non–marital cohabitation. The risk of cohabiting between 25 and 29 years of age is as high as the risk of entering cohabitation between age 20 and 24.

Figure 7.18: Piecewise-constant baseline intensity for transition to first union, western German women



Source: Familiensurvey 2000, own calculations

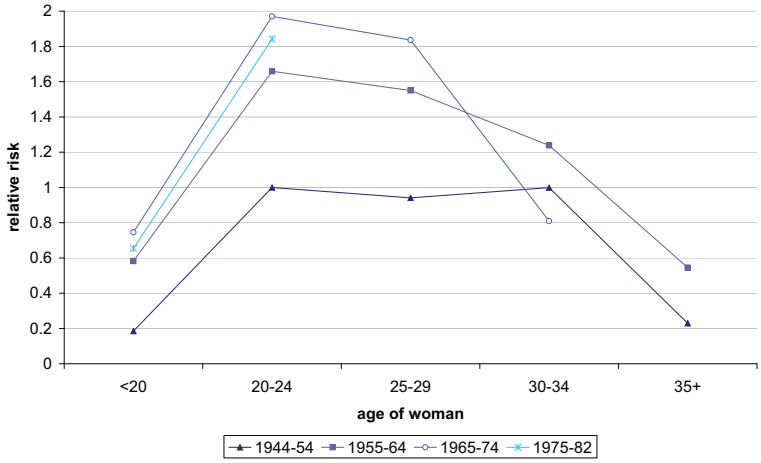
Notes: (1) Dependent variable: transition to first union measured since age 15 (2) Graph standardized for all variables shown in Table 10.1 and 10.2

This age effect might be superposed by different trends across generations. Therefore we also plot the age patterns of transition to first union by type of union and birth cohort.[49]

Women born between 1944 and 1954 had the lowest intensity to cohabit in almost all age groups (Figure 7.19). For all women born afterwards, the risk of starting a first union as a cohabiting union has been increasing, in particular for the age groups 20-24 and 25-29. For western German women born between 1965 and 1974 the risk of living in cohabitation between age 20 and 24 had doubled compared to women from the birth cohort 1944-54. Parallel, in Figure 7.20, we see a drastic decrease in the risk of direct marriage over cohorts for all age groups, especially for the age group 20-24. Overall, our results show a remarkable decline in first marriage intensities at all ages and an overwhelming preference for cohabitation as a first step in the partnership career of western German women.

[49]For illustrative reasons we draw a line between the piece-wise constant intensities in all our next graphs instead of displaying them as constant risks over each category.

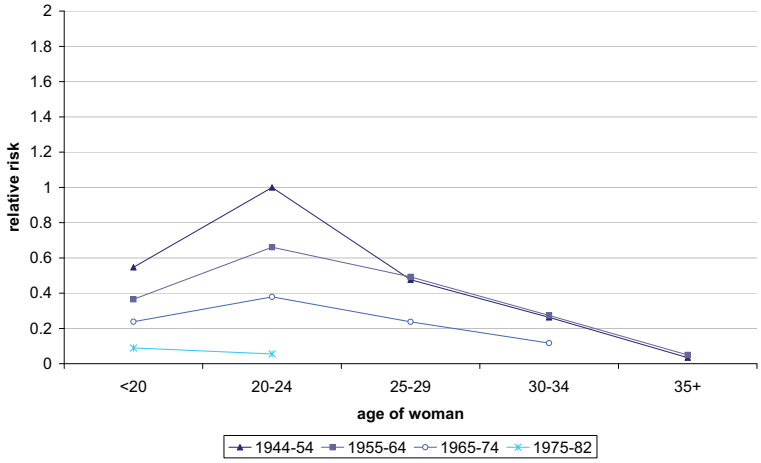
Figure 7.19: Piecewise-constant baseline intensity for transition to first cohabitation by birth cohort, western German women



Source: Familiensurvey 2000, own calculations

Notes: (1) Dependent variable: transition to cohabitation measured since age 15 (2) Graph standardized for all variables shown in Table 10.1

Figure 7.20: Piecewise-constant baseline intensity for transition to first direct marriage by birth cohort, western German women



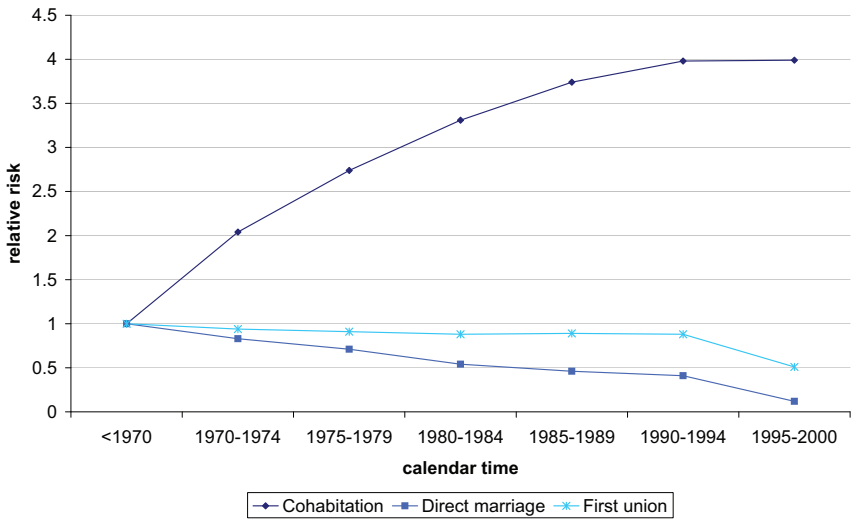
Source: Familiensurvey 2000, own calculations

Notes: (1) Dependent variable: transition to direct marriage measured since age 15 (2) Graph standardized for all variables shown in Table 10.2

Period perspective by type of first union

The development of cohabitation and direct marriage over calendar time is displayed in Figure 7.21. For the interactions with calendar time we estimated separate models in which we included calendar time instead of birth cohort. Results for this estimations are presented in Table 10.3 in Appendix B. Since the 1970s, direct marriage intensities decreased and are now almost negligible. On the contrary, rates of cohabitation jumped up. Between the 1960s and 1990s the relative risk of entry into cohabitation quadrupled. However, this increase has been somewhat slowed down during the 1990s. While we observe a constant development of first union intensity over time, we also see a slight decrease in the 1990s. Yet, this decrease in first union intensity for last calendar period in our data set seems to be questionable. This result might be biased due to censoring problems: we censored our observations in May 2000 since the exact date of interview (interviews were conducted between May and November 2000) is not available in the data set. Therefore, we might underestimate the number of cohabiting unions in this year; as a result we get falling first union rates.

Figure 7.21: First union formation intensities by type of union and calendar time, western German women

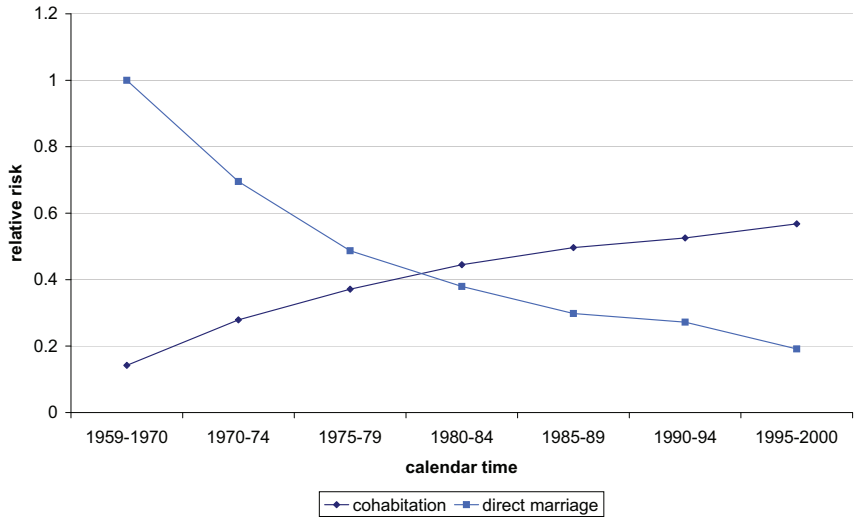


Source: Familiensurvey 2000, own calculations

Notes: (1) Dependent variable: transition to first union measured since age 15 (2) Graph standardized for all variables shown in Table 10.3 in Appendix B

Furthermore, we want to investigate more deeply whether a fall in the rate of entry into marriage has been accompanied by a compensating increase in the rate of entry into cohabitation. In the extension of the proportional hazard model, we therefore analyze the two competing transitions (entry into marital and non–marital union) jointly. This correspondents to entering the type of decrement as an extra factor in the analysis where the extra factor operates in a two–way interaction with each of the other explanatory variables (Hoem and Kostova, 2008). A more detailed description of this method is given in Chapter 6, Section 6.2. The advantage of this procedure lies in the direct comparison of the trends over calendar time across the two competing risks. Figure 7.22 displays the rates of entry into non–marital cohabitation and into direct marriage during the period 1959-2000, relative to the risk of marrying directly in the 1959-1970 period.

Figure 7.22: First union formation intensities by type of union and calendar time, western German women



Sources: Familiensurvey 2000, own calculations

Notes: (1) Dependent variable: transition to first union measured since age 15 (2) Rates calculated in a joint model of the two transitions (Table 10.4 in Appendix B) (3) Reference category: direct marriage in the period 1959-1970 (4) Controlled for age of woman

One clearly observes the declining risk of direct marriage over time and the corresponding increase in the risk of entry into cohabitation. The marriage risk initially was more than eight times as high as the entry risk for consensual unions. It declined considerably and since the beginning of the

1980s, the risk of starting a first union as cohabitation is higher than the direct marriage risk. From this time onwards, cohabitation has become the most common type of first union in western Germany. It is four times higher in the last observed period, 1995-2000, than in the period before 1970. The rates of direct marriage, however, dropped by 80%. We conclude that despite the strong increase in cohabiting unions, cohabitation cannot compensate for the steep decrease in direct marriage rates starting in the 1970s.

The effect of education on first union formation

In addition to the analyzes of the impact of education on first union formation by means of cumulative incidence curves (section 7.3.1) we now display the results of the effect of educational attainment and educational enrollment on the transition to cohabitation and direct marriage estimated with the proportional hazard model in more detail. Since the educational gradient does not change substantially after including our control variables, we only show the last model (Model 5) where we control for all other relevant characteristics (extracts from Model 5, Tables 10.1 and 10.2). Women with low levels of education have only general schooling, women with medium levels of education have a vocational degree and women with high levels of education have some kind of university degree (see again the definition of education in chapter 6.6).

Table 7.1: Relative risk of entering first union by type of union according to level and enrollment in education, western German women

	Cohabitation	Direct marriage
Level of education		
in education	0.63 ***	0.27 ***
out of education – low	0.77 ***	0.76 ***
out of education – medium (ref)	1	1
out of education – high	1.15	1.12
out of education – other	1.07	0.96

Sources: Familiensurvey 2000, own calculations

Notes: (1) Extract from Model 5, Tables 10.1 and 10.2 (2) missing values are not shown but were controlled for (3) ***p $\leq$ 0.01; **0.01 $\leq$ p $\leq$ 0.05; *0.05 $\leq$ p $\leq$ 0.10

As already expected, being enrolled in education has a strong negative effect on the intensity of direct marriage. It has a negative effect on the transition to cohabitation as well, but this effect is not as strong as it is for entry into direct marriage. The level of education influences the risk of forming marital and non–marital unions in a similar manner. Women with a low degree in education have a significantly lower risk of entering cohabitation as well as direct marriage than medium and higher educated women. Highly educated western German women have a slightly higher risk of entering a first union, either as cohabitation or direct marriage than medium educated women but this effect is not significant. However, when we set our reference category to lower education, we observe a significantly higher risk of entering cohabitation for medium (1.45**) and highly educated women (1.42**) as compared to less qualified women (not shown here) The same accounts for direct marriage: medium educated women have a 1.3 times significantly higher risk and highly educated women a 1.5 times significantly higher risk than women with a low degree of education.

Compared to the descriptive analyzes on the effect of first school degree on union formation we just showed before (section 7.3.1), three different findings are discovered after estimating a proportional hazard model: 1. A non-significant elevated risk of entry into cohabitation for highly educated women; 2. A slightly elevated risk of entry into direct marriage for highly educated women; 3. Lower direct marriage risks for women with low education, whereas our former results suggested a higher risk. This raises the question whether the educational differences in entry into first union are influenced by different lengths of schooling, by different measurements of educational attainment or by changes over time. In a first step, we therefore included an interaction between women's age and women's educational attainment and enrollment into the model.

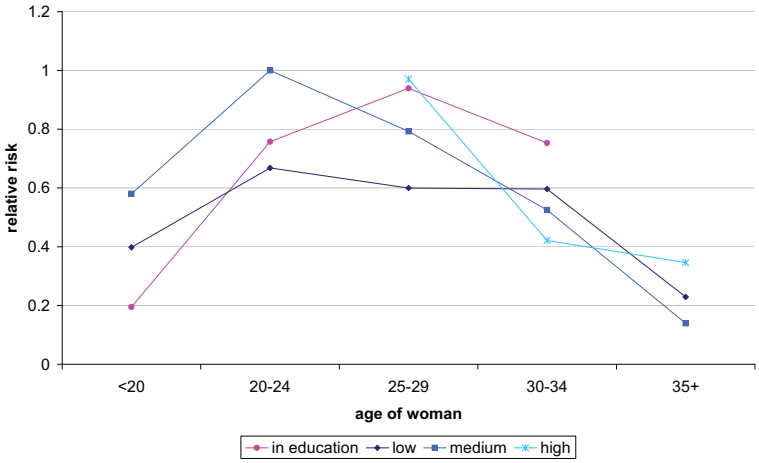
Interaction between current education and age of the woman

The next figures show an interaction between the baseline and the education covariate (Figures 7.23 and 7.24). Rates for highly educated women are displayed only for ages 25 and older since there are only very few women who received their university degree with age 24 and younger: German academics usually enter their first employment by age 25 (Institut der deutschen

Wirtschaft Köln, 2010, p.7). The age pattern for low and medium educated western German women confirms the pattern observed for the whole survey population[50], regardless of the type of union: it is highest at ages 20-24. Before age 25, women with medium education have higher rates of cohabitation than low educated women. Highly educated women show a 1.23 times higher intensity of cohabiting at ages 25 to 29 than women with medium education, but this does not turn out to be significant. However, women who are enrolled in education between age 25 and 34 have a higher risk of entering a non–marital cohabiting union than those who already left the educational system. Women in education at age 25 and above consist almost exclusively of students who are generally longer in education than women with lower degrees. Direct marriage rates (Figure 7.24) show similar age patterns for low and medium educated women. We observe a different pattern for women with a university or technical college degree: the relative risk of marrying directly at ages 30-34 is twice as high compared to women in the same age group with a vocational degree (on a 95% significance level). This points to a *catch–up effect* for highly educated women: women with a completed university degree who did not enter a first marriage during their studies more often choose to marry directly after they have finished their studies than medium educated women. Being enrolled in education and getting married is very rare: the risk of marrying directly is much lower for women who are still studying over all age groups compared to women who are out of education.

[50]We do not display the category "other degree" since there only very few women included in this category. Besides, we do not know what kind of educational degree is hidden within this category and therefore cannot interpret the effect satisfactorily.

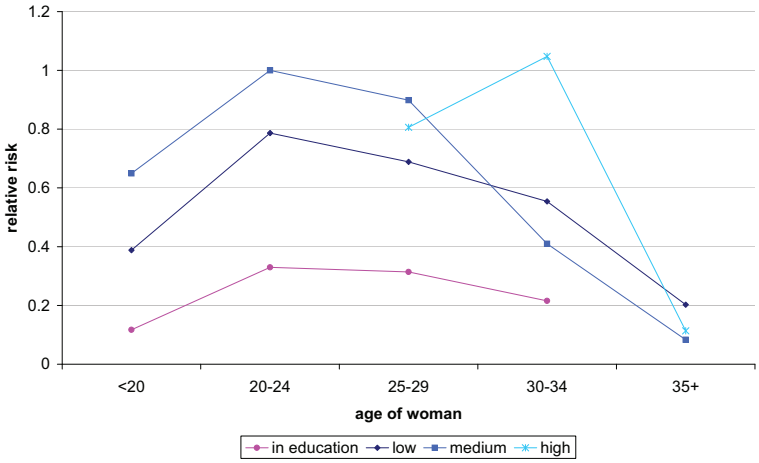
Figure 7.23: Relative risk of entering cohabitation by level of education and age of the woman, western German women



Source: Familiensurvey 2000, own calculations

Notes: (1) Dependent variable: transition to cohabitation measured since age 15 (2) Graph standardized for all variables shown in Table 10.1

Figure 7.24: Relative risk of entering direct marriage by level of education and age of the woman, western German women



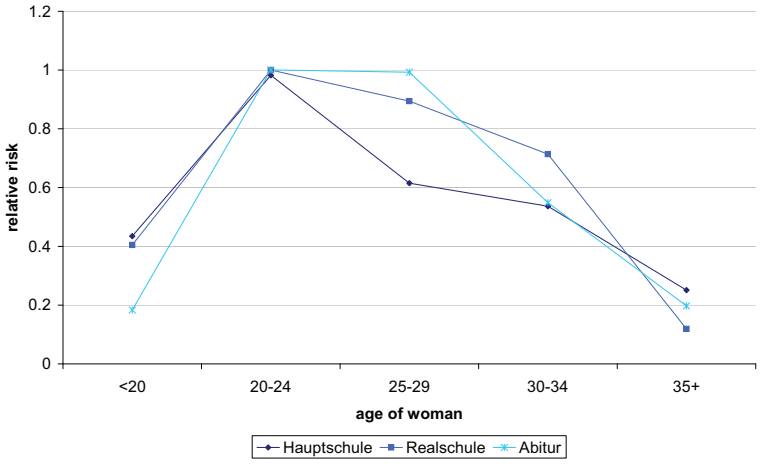
Source: Familiensurvey 2000, own calculations

Notes: (1) Dependent variable: transition to direct marriage measured since age 15 (2) Graph standardized for all variables shown in Table 10.2

We conclude that women with higher education who have not graduated yet have a higher risk of entering their first union as cohabitation and a very low risk of marrying directly than women who left education. Once women with a university degree finish their studies and have not lived in a marital or non–marital cohabiting union yet, they catch–up with the other women. In contrast to women with higher education who started their first union during their studies as cohabitation, they choose direct marriage over non–marital cohabitation as first union. We conclude that the proportional assumption of our model does not hold in the analysis of first union formation, since the age patterns between the three educational levels are different.

The results from the hazard model assume that women with a low educational level have a lower direct marriage intensity than other women. The cumulative incidence rates of direct marriage for first school graduation showed a different picture. To check for this paradox we first applied an interaction between the time–constant variable measuring first school graduation and age of the woman (Figures 7.25 and 7.26). Western German women who finish their school with *Abitur* show lower cohabitation intensities below age 20 than women who graduate with a *Realschul*–degree since they are mostly still at school during that age. The relative risks of entry into cohabitation do not differ between ages 20 to 24 for all three educational groups. We find a strong decline in cohabitation intensity for low educated women between ages 25 and 29 while higher educated women have the highest risk of entering cohabitation during that age compared to women with a medium school graduation. Afterwards the risk of cohabitation decreases for all educational groups.

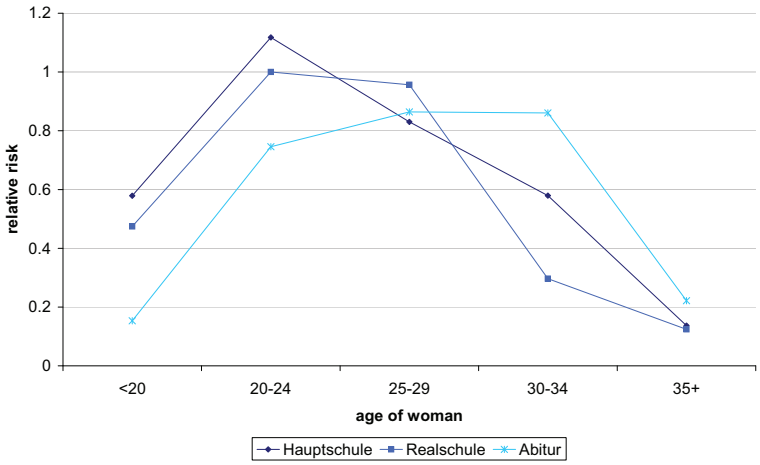
Figure 7.25: Relative risk of entering cohabitation by first school graduation and age of the woman, western German women



Source: Familiensurvey 2000, own calculations

Notes: (1) Dependent variable: transition to cohabitation measured since age 15 (2) Graph standardized for all variables shown in Table B3 in Appendix B

Figure 7.26: Relative risk of entering direct marriage by first school graduation and age of the woman, western German women



Source: Familiensurvey 2000, own calculations

Notes: (1) Dependent variable: transition to direct marriage measured since age 15 (2) Graph standardized for all variables shown in Table B3 in Appendix B

In contrast, we find higher rates of entry into direct marriage for women who have no school degree or graduated from a *Hauptschule* than women with higher school degrees in the two youngest age groups. We clearly see a delay of marriage for women with *Abitur*, as already been shown for the time–varying variable. They have highest marriage intensities between age 25 and 34. Women with *Realschul*–degree are somewhat in the middle. From these graphs we clearly see an accelerated risk of entering direct marriage for low educated women which we could not observe from the interaction between current education and age. To more deeply understand this phenomenon we created an interaction between first school graduation and the time–varying education covariate.

Interaction between general schooling and current education

Table 7.2 displays the interaction between the time–varying variable of education and the time–constant variable measuring the degree of first school graduation[51].

Remarkable is the very low risk of women who graduated from school with a high school degree (*Abitur*) and have not further underwent education during their time at risk. They have a 49% lower risk to enter cohabitation and a 44% lower risk to enter marriage than our reference group (*Realschule* and vocational degree). It is very likely that this group of women either still plans to study further or is not willing or able to start an apprenticeship or university studies and therefore delays union formation in general. Another interesting result is the elevated marriage risk of women with a low school degree (*Hauptschule*) who have achieved a vocational degree during the time they were at risk of first union formation. They have a 1.22 times higher risk to enter direct marriage than the reference group.

We conclude that women with a higher school degree who have not further underwent education display very low marriage risks. Since they belong to the category of low educated women in our event history model, this explains the low direct marriage intensity for those women. At the same time we find a confirmation for higher rates of direct marriage for women with a lower school degree: graduating with only a low school degree and finish

[51] Just to put one example to explain what the categories mean: low school degree and no further education are women who have the lowest school degree in Germany and did not underwent any further education after they graduated from school.

Table 7.2: Transition to first union: Interaction between first school degree and current education, western German women

	Cohabitation	Marriage
Combined education variable		
in education	0.63 ***	0.30 ***
low school degree+no further education	0.85	0.90
medium school degree+no further education	0.79 *	0.89
high school degree+no further education	0.51 ***	0.56 ***
low school degree+vocational degree	1.00	1.22 **
medium school degree+vocational degree (ref.)	1	1
high school degree+vocational degree	1.03	1.07
medium/high school degree+university degree	1.13	1.19
other (curr.)	1.10	1.07

Sources: Familiensurvey 2000, own calculations

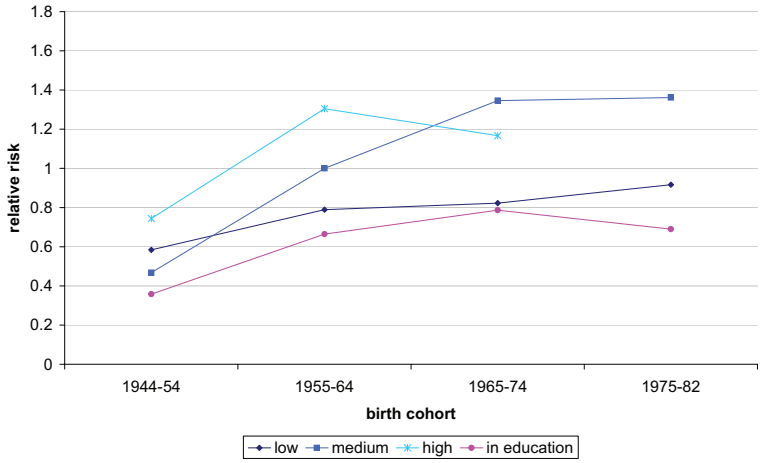
Notes: (1) Graph standardized for all variables shown in Tables 10.1 and 10.2 (2) missing values are not shown but were controlled for (3) ***p $\leq$ 0.01; **0.01 $\leq$ p $\leq$ 0.05; *0.05 $\leq$ p $\leq$ 0.10

vocational training increases direct marriage intensities.We did not observe this effect when we estimated our models with the time–varying covariate of education since this group of women was "hidden" within the category of *medium* education.

Interaction between current education and birth cohort of the woman

Whether the increase in cohabiting unions since the 1980s was more pronounced in certain educational groups than in others is part of the further analyzes. Our results from the analysis of cumulative incidence curves showed that women with higher education have been the forerunners of cohabitation and that medium educated women adopted this behavior two cohorts later. In line with this finding, our hazard model shows a similar picture. In Figures 7.27 and 7.28 we include the interaction of education with birth cohort of the woman. The relative risk of entry into first union as non–marital cohabitation is highest for highly educated women in the two oldest birth cohorts.

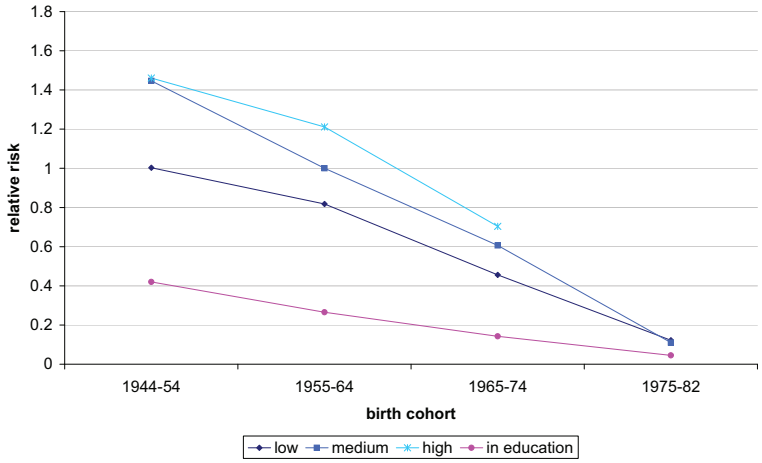
Figure 7.27: Relative risk of entering cohabitation by level of education and birth cohort of the woman, western German women



Source: Familiensurvey 2000, own calculations

Notes: (1) Dependent variable: transition to cohabitation measured since age 15 (2) Graph standardized for all variables shown in Table 10.1

Figure 7.28: Relative risk of entering direct marriage by level of education and birth cohort of the woman, western German women



Source: Familiensurvey 2000, own calculations

Notes: (1) Dependent variable: transition to direct marriage measured since age 15 (2) Graph standardized for all variables shown in Table 10.2

For women born between 1965 and 1975 this has changed, from now on the intensity becomes highest for medium educated women. Since the great majority of women with a completed university degree is older than 24 years of age at graduation we do not display the relative risk for the youngest cohort who are between 18 and 24 years of age at interview. Western German women with a low level of education have the lowest cohabitation–intensity across all birth cohorts. The relative risk of entering first union as cohabitation while being in education has been increasing over birth cohorts but underwent a slight drop for the youngest cohort. Non–marital cohabitation is not only a phenomenon of trainees or students, but women out of the educational system even have higher rates of cohabitation. The relationship between being in education and entering direct marriage is negative, to a higher extent for women in education but it also decreases drastically over birth cohorts for women who left the educational system. Direct marriage risks dropped by more than 50% between the oldest cohort and the 1965–74 cohort and is negligible for the youngest birth cohort.

The effect of employment on first union formation

In the following section we look at the impact of women's employment characteristics on first union formation. In Table 7.3 we estimated the relative risk of entering a first union by western German women's activity status.

Women's activity status only has a limited effect on direct marriage formation. We find no significant differences between full– and part–time employment. For non–employed women there are also no significant differences in the impact on the intensity of direct marriage observable besides the already known result that women in education have a much lower risk than employed or otherwise not employed women. Entering cohabitation as first union seems to go along with a more unstable employment position. The relative risk of entering cohabitation is twice as high for unemployed women than for full–time employed women. It is also 30% higher for women who are currently inactive. However, we have to keep in mind that entering a first union out of unemployment or inactivity is very rare in western Germany: only 0.3% of all person–months at risk were undergone as unemployed, for inactivity this accounts for at least 5.4%. Women who became unemployed

Table 7.3: Relative risk of entering first union by type of union according to women's activity status, western German women

	Cohabitation	Direct marriage
Activity status		
Employed		
full–time (ref)	1	1
part–time	1.20	0.93
Not employed		
in education	0.63 ***	0.27 ***
unemployed	1.96 **	1.33
maternal/parental leave	0.97	0.99
inactive	1.24 *	0.94
never employed	1.03	1.22

Sources: Familiensurvey 2000, own calculations

Notes: (1) Extract from Model 5, Tables 10.1 and 10.2 (2) missing values are not shown but were controlled for (3) ***p $\leq$ 0.01; **0.01 $\leq$ p $\leq$ 0.05; *0.05 $\leq$ p $\leq$ 0.10

or inactive before they entered a first partnership are a very selective group in western Germany who seem to prefer the less stable commitment of cohabitation over marriage. The majority in western Germany is currently either in education or works full–time while they are at risk of a first union.

The effect of pregnancy and motherhood on first union formation

In this section we investigate the relationship between becoming a mother and entering a first union in western Germany. As we see in Table 7.4 the intensity to enter a first union, either as cohabitation or direct marriage, increases after the conception of a child. The impact of pregnancy and motherhood on the intensity of union formation is much stronger for direct marriage than for cohabitation. The first pregnancy leads to an extremely high rise of first marriage intensity – it is more than 23 times higher between the third and sixth month of the pregnancy than for non–pregnant childless women. In the first six months of the pregnancy, we observe an increase in direct marriage intensity, followed by a decrease, particularly after the birth of the child. After becoming aware of the pregnancy, western German

women quickly marry. Pregnancy also increases the intensity of entering into non–marital cohabitation, but to a extremely lesser extent.

Table 7.4: Relative risk of entering first union by type of union according to pregnancy–motherhood–status, western German women

	Cohabitation	Direct marriage
Pregnancy–motherhood–status		
childless, not pregnant (ref)	1	1
childless, pregnant < 3 months	1.42	11.40 ***
childless, pregnant 3-6 months	1.04	22.27 ***
childless, pregnant 6-9 months	3.35 ***	13.98 ***
mother, child < 6 months	3.06 ***	6.03 ***
mother, child > 6 months	1.13	1.53 ***

Sources: Familiensurvey 2000, own calculations

Notes: (1) Extract from Model 5, Tables 10.1 and 10.2 (2) missing values are not shown but were controlled for (3) ***p $\leq$ 0.01; **0.01 $\leq$ p $\leq$ 0.05; *0.05 $\leq$ p $\leq$ 0.10

Moreover, the duration of pregnancy differs in comparison to direct marriage. Contrary to direct marriage, in the first six months of the pregnancy the intensity to enter cohabitation does not differ significantly from non–pregnant women. In the case of cohabitation, the impact of pregnancy is generally smaller with a peak in the later stage of pregnancy (last trimester of pregnancy) and a relatively high intensity during the first six months after childbirth. In other words: pregnant women who do not live in any union before their pregnancy usually enter marriage directly instead of cohabitation, especially after becoming aware of the pregnancy and before the child is born. In a next step, we analyze whether the effect of pregnancy and motherhood has undergone changes over time by analyzing changes over grouped birth cohorts of the women (Tables 7.5 and 7.6). Due to a low number of cases in some of the categories we combined five categories into three: 1) childless, not pregnant, 2) childless, pregnant and 3) mother. The relative risk of entering cohabitation has been increasing most for non–pregnant women. It more than doubled between the oldest and the youngest cohort. Highest overall cohabitation intensities had pregnant women, with a 1.77 times higher risk belonging to birth cohort 1975-1982 compared to the oldest cohort. But also the risk for mothers almost doubled over cohorts.

Table 7.5: Relative risk of entering first union by cohabitation according to pregnancy–motherhood–status by birth cohort, western German women

	childless, not pregnant	*childless, pregnant*	*mother*
1944–1954	1 (ref)	2.38 **	2.49 ***
1955–1964	2.09 ***	3.84 ***	1.75 **
1965–1974	2.42 ***	4.55 ***	3.15 ***
1975–1982	2.36 ***	4.08 ***	4.97 ***

Sources: Familiensurvey 2000, own calculations

Notes: (1) Table standardized for all variables shown in Tables 10.1 (2) missing values are not shown but were controlled for (3) ***p $\leq$ 0.01; **0.01 $\leq$ p $\leq$ 0.05; *0.05 $\leq$ p $\leq$ 0.10

Table 7.6: Relative risk of entering first union by direct marriage according to pregnancy–motherhood–status by birth cohort, western German women

	childless, not pregnant	*childless, pregnant*	*mother*
1944–1954	1 (ref)	16.76 ***	1.61 **
1955–1964	0.71 ***	12.22 ***	1.41 *
1965–1974	0.42 ***	5.79 ***	1.35
1975–1982	0.17 ***	1.01	2.22 *

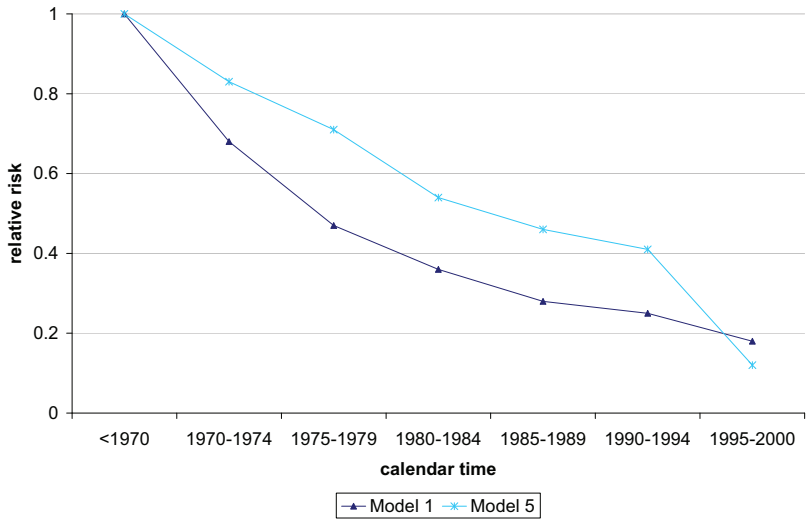
Sources: Familiensurvey 2000, own calculations

Notes: (1) Table standardized for all variables shown in Table 10.2 (2) missing values are not shown but were controlled for (3) ***p $\leq$ 0.01; **0.01 $\leq$ p $\leq$ 0.05; *0.05 $\leq$ p $\leq$ 0.10

Direct marriage intensity dropped for all women over time. For non–pregnant women direct marriage intensities decreased by almost 80 % between the oldest cohort (reference category) and the youngest cohort. Shotgun marriages experienced the most dramatic decrease: women born after 1975 marry almost as often when they are pregnant as do non–pregnant women, while the oldest women in our data set (born between 1944 and 1954) had an almost 17 times higher risk to enter direct marriage during pregnancy than childless, non–pregnant women. The risk of marrying while already being a mother is still higher than for childless, non–pregnant women but it is not as high as for cohabiting women and partly non–significant. Besides, case numbers for women who are mother and have not entered a first union yet, are very small.

After we control for the effect of pregnancy and motherhood on entry into union formation in the last model (Model 5 in Table B2 in Appendix B), the decrease of direct marriage rates over calendar time is not as strong as has been observed in our basic model (Model 1 in Table B2 in Appendix B). We do not observe such an effect for the transition to cohabitation over time. Figure 7.29 displays the development of direct marriage intensities over calendar time by Model 1 and Model 5.

Figure 7.29: Relative risk of entering direct marriage by calendar time over Model 1 and Model 5, western German women



Source: Familiensurvey 2000, own calculations

Note: (1) Dependent variable: transition to direct marriage measured since age 15

We clearly see a diminishment of the strong negative period effect over the different models. This means that the decline in shot–gun marriages is part of the explanation for the drop in direct marriage rates. Only for the last calendar period, 1995-2000, the relative marriage risks between the first and the last model converge again and are not significantly different anymore. For this period, the pregnancy–motherhood–status is not part of the explanation of decreasing marriage rates anymore, probably because there is no decrease in the positive effect of pregnancy on marriage anymore.

Excursus: Variables only available for western Germany

In Table 7.7 we display the effects of the parental background and religious affiliation on first union formation. These variables reflect in particular the respondent's upbringing and parental family characteristics and are only available for Germany.

Table 7.7: Relative risk of entering first union by type of union according to level of religiosity and parental family characteristics, western German women

	Cohabitation	Direct marriage
Level of religiosity		
religious	0.55 ***	1.68 ***
somewhat religious	1.03	1.39 ***
not religious (ref)	1	1
Parental divorce		
no (ref)	1	1
yes	1.61 ***	1.27
Education of mother		
low	1.10	1.04
medium (ref)	1	1
high	1.00	0.67
Education of father		
low	0.80 *	1.05
medium (ref)	1	1
high	0.77 **	0.92

Sources: Familiensurvey 2000, own calculations

Notes: (1) Extract from Model 5, Table 10.1 and 10.2 (2) missing values are not shown but were controlled for (3) ***p $\leq$ 0.01; **0.01 $\leq$ p $\leq$ 0.05; *0.05 $\leq$ p $\leq$ 0.10

As expected, being religious and often attending church service decreases the relative risk of entering cohabitation by more than 40%. It increases the relative risk of entering direct marriage by more than 60% and by around 40% if the women belongs to a religious community and goes to church only several times a year or less. For this category we did not find a significant

difference towards non–religious women regarding the transition to cohabitation.

The result for the effect of parental divorce also confirms our preassumption: experiencing a parental divorce until age 16 reduces the propensity to marry by leading to 1.6 times higher rates of cohabitation in comparison to women whose parents did not divorce during their childhood.

For cohabitation we find a u–shaped effect of father's education: having a father with a low *or* a high level of education decreases the transition to non–marital cohabitation; mother's education does not have any significant effect on entry into cohabitation. We do not find any significant effect of parent's education on the transition to direct marriage. However, this effect is overlapped by the impact of the respondent's educational level and enrollment. Once we have controlled for educational histories of women, the effects of parent's education on entry into direct marriage prove to be much smaller (see again Table 10.2). Before we control for respondent's education, the educational level of the parents had a clear negative effect on the transition to direct marriage: it was 35% lower for women with highly educated fathers and 1.19 times higher for women with low educated mothers (Model 2 in Table 10.2). When the covariate for women's educational investment and enrollment is included, this effect disappears completely (Model 3 in Table 10.2). We interpret this as a sign, that it is not parents education that influences entry into direct marriage negatively but that parents of higher social classes provide their children with better opportunities to attain higher level of eduction and to stay in the educational system longer, than less qualified parents. Thus, the social class background indirectly delays marriage.

7.3.3 Transition to subsequent marriage

The results of our competing risk analysis of first union formation showed that there is a strong increase in consensual union rates and a steep decrease in direct marriage rates. However, these results do not tell us anything about the further development of such unions. As we already discussed in chapter 7.2, there are strong differences between the two countries regarding the evolution of non–marital cohabitations. It seems that even though the number of cohabiting unions and their duration increased in western Germany,

marriage is still the most dominant form of living since the majority of women marries some time after moving together. In France, cohabitations became a more lasting lifestyle, also because the birth of a child no longer demands marriage. Consensual unions in France seem to become more an alternative to marriage than cohabiting unions in Germany. Therefore, in the next sections, the subsequent development of cohabiting first unions is investigated. There are three possible outcomes of the cohabitation state: marriage, dissolution, and no subsequent transformation. We only discuss the results for marriage formation after cohabitation since our theoretical considerations focus on the aspect of union formation. We treat women who separate during the time of observation as censored. If women remain in cohabitation until interview date, they become right–censored.

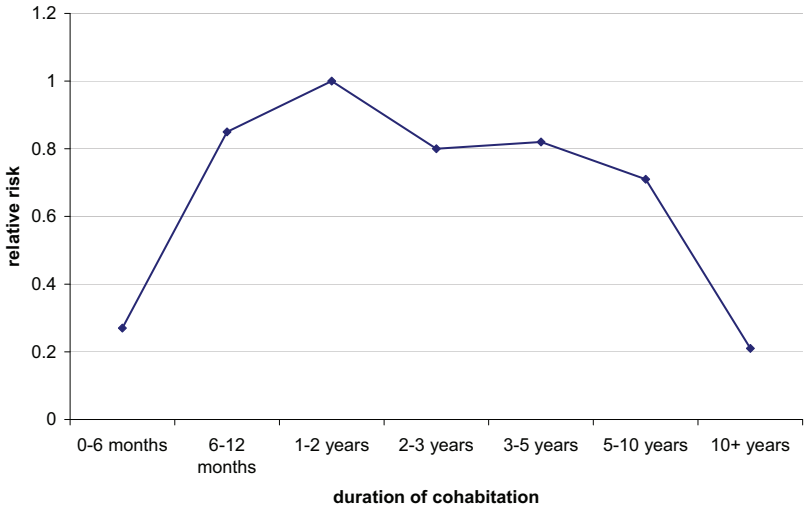
Following the procedure we already applied for the analysis of first union formation, we run different models in which we introduce the dependent variables step-by-step to detect how changes over calendar time might be influenced by changes in the effect of explanatory variables. We start with a simple model (Model 1) where the baseline (time since start of cohabitation), the age of the woman and the birth cohort is included. We then gradually add the rest of the variables: variables measuring the social background (Model 2), current education (Model 3), partner's education (Model 4), activity status (Model 5), and pregnancy–motherhood–status (Model 6). Detailed results of all models are presented in Table 10.5 in Appendix B. The following paragraphs contain a discussion of each of the covariates separately. Again, interactions will be presented when applicable.The method and the model specifications are explained in detail in Chapter 6, Section 6.2.

Duration of cohabitation and age of subsequent marriage formation

In a first step, we discuss the shape of the basic process before we describe the impact on subsequent marriage formation of the major covariates. We display the baseline intensity of the transition to subsequent marriage formation for western Germany (Figure 7.30) which starts at the beginning of the first cohabitation. Marriage risks increase strongly in the first two years of union duration. The risk is highest in the second year after women moved together with a partner. We observe a slight decrease afterwards.

Marriage intensity remains relatively stable up to 10 years after first union formation. Women who are longer than ten years in a cohabiting union only very rarely marry anymore, they have a 80% lower risk compared to women with a two-year duration of cohabitation.

Figure 7.30: Piecewise-constant baseline intensity for transition to subsequent marriage, western German women

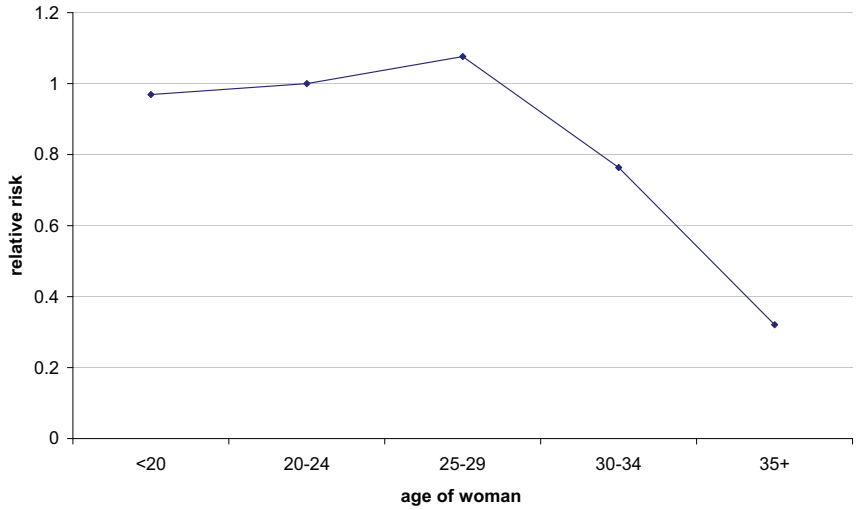


Source: Familiensurvey 2000, own calculations

Notes: (1) Dependent variable: transition to subsequent marriage measured since start of cohabitation (2) Graph standardized for all variables shown in Table 10.5

We are also interested if there is a different age pattern in the transition to marriage after cohabitation compared to the transition to first union (Figure 7.31). The highest risk of getting married after cohabitation can be found among women who are between ages 25 and 29. But also younger women show similar marriage risks though slightly lower. Women who are older than 30 years of age show significantly lower transformation rates into marriage.

Figure 7.31: Subsequent marriage formation intensities by age of the woman, western German women

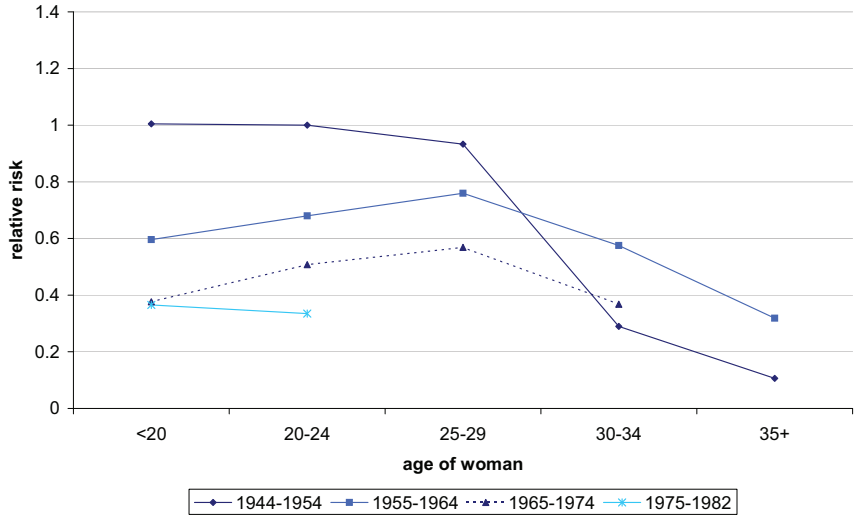


Source: Familiensurvey 2000, own calculations

Notes: (1) Dependent variable: transition to subsequent marriage measured since start of cohabitation (2) Graph standardized for all variables shown in Table 10.5

To clarify the distribution of subsequent marriage risks over age by birth cohorts, we estimated interaction effects between age and cohort (Figure 7.32). For the oldest cohort marriage risks concentrate on the two youngest age groups. In all subsequent cohorts subsequent marriage formation rates decrease and at the same time women become older at marriage formation. Marriage intensities are more equally distributed over the age groups with a peak at age 25–29.

Figure 7.32: Subsequent marriage formation intensities by age of the woman and birth cohort, western German women



Source: Familiensurvey 2000, own calculations

Notes: (1) Dependent variable: transition to subsequent marriage measured since start of cohabitation (2) Graph standardized for all variables shown in Table 10.5

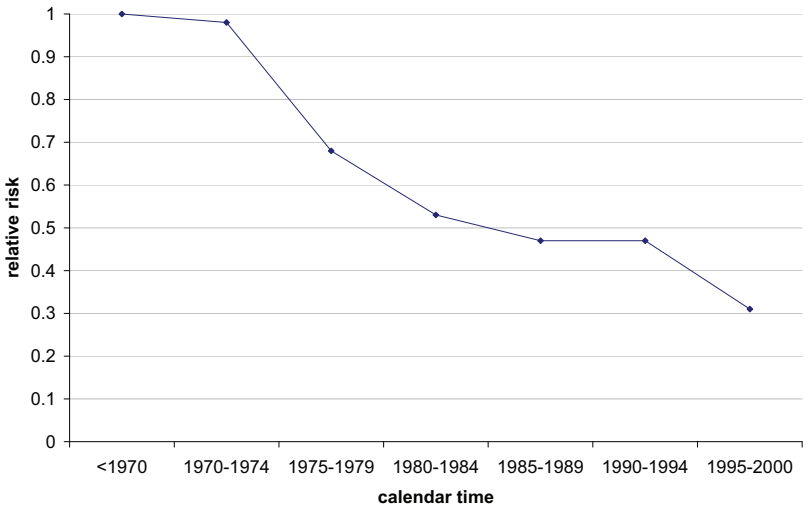
Effect of calendar time

The development of the transformation of cohabitation into subsequent marriage over calendar time is displayed in Figure 7.33.[52] Since the 1970s, subsequent marriage intensities decreased by around 60%. In the past, women who entered consensual unions were more likely to get married than cohabiting women in the 1990s. Starting with the period 1975-1979 marriage rates began to decrease. This process might have been initiated by the abolishment of the "Kuppelei-Paragraph" in 1973 (see again Chapter 4.2) which legitimated unmmaried cohabitation. Since the mid-1980s the risk of subsequent marriage remained stable at a relatively low level. It slightly decreased again in the latest period, 1995–2000, which might be an answer to reforms in legislation in 1997 that aimed at abolishing differences between conjugal and illegitimate children. They enabled unmarried parents of different sex to apply for the joint right of custody for their child which made non–marital cohabitation after childbirth more attractive and

[52]For the interaction with calendar time we estimated separate models in which we included calendar time instead of birth cohort. Results for this estimations are presented in Table B3 in Appendix B.

might therefore induce falling subsequent marriages rates during that time. Though marriage intensities have become smaller over time, marriage after cohabitation is not rejected in western Germany. Yet, as we have already discussed in section 7.3.2, this decrease might be caused by censoring problems: since we do not know the exact date of interview (interviews were conducted between May and November 2000) we might underestimate the number of cohabiting unions and also the number of subsequent marriages; as a result we get falling marriage rates.

Figure 7.33: Subsequent marriage formation intensities by calendar time, western German women



Source: Familiensurvey 2000, own calculations

Notes: (1) Dependent variable: transition to subsequent marriage measured since start of cohabitation (2) Graph standardized for all variables shown in Table 10.6 in Appendix B

The effect of women's and partner's education on subsequent marriage formation

We now display the effect of the respondent's educational attainment and educational enrollment on the transition to marriage after cohabitation. For western Germany we analyze the educational level of woman's partner at start of cohabitation as well (Table 7.8). We show the last model (Model 6) where we control for all other relevant characteristics (extract from Model 6, Table 10.5). A clear reduced marriage risk can be observed for women who are still in education. For women out of education we find no significant differences between the respective levels of education. Highly educated

women show a significantly lower risk of marriage formation in our first two models (Table 10.5) but after controlling for activity status and pregnancy–motherhood–status this effect becomes non–significant. In opposition to this finding, one observes a significant positive impact of partner's level of education on marriage formation. Western German women with highly educated partners at the begin of cohabitation have a 1.31 times higher risk of subsequent marriage formation than women with medium educated partners. On the contrary, women with partners with only general schooling show a 34% lower marriage intensity than the reference group.

Table 7.8: Relative risk of entering marriage after cohabitation according to woman's and partner's level and enrollment in education, western German women

	Marriage after cohabitation
Level of education	
in education	0.47 ***
out of education – low	0.89
out of education – medium (ref)	1
out of education – high	0.84
out of education – other	0.90
Partner's education	
in education	0.91
low	0.66 ***
medium (ref)	1
high	1.31 **
other	2.21

Sources: Familiensurvey 2000, own calculations

Notes: (1) Extract from Model 6, Table 10.5 (2) missing values are not shown but were controlled for (3) ***p $\leq$ 0.01; **0.01 $\leq$ p $\leq$ 0.05; *0.05 $\leq$ p $\leq$ 0.10

Of particular interest is the interaction effect between current educational attainment of the woman and the educational status of her partner at the start of their partnership (Table 7.9). Compared to the reference category (both with medium education) we observe very low marriage risks for women who are in education, regardless of their partner's level of education. If the partner is still in education, marriage becomes significantly reduced only if the women is also in education. If she is already out of education we do

not observe a negative enrollment effect of the partner anymore. For western German couples with only general schooling subsequent marriage risks decrease by 50%. But also highly educated women with a low educated partner at the start of cohabitation show significantly lower subsequent marriage risks. Having a partner with a university degree increases marriage intensities for all women, regardless of their own education. The risk is highest for couples in which both partners hold a university degree, however it is not significantly different from the reference group.

Table 7.9: Transition to subsequent marriage: Interaction between current level of education of the woman and partner's level of education at start of cohabitation, western German women

	women's education			
partner's education	in education	low	medium	high
in education	0.44 ***	0.94	0.95	0.81
low	0.34 ***	0.53 ***	0.78	0.46 *
medium	0.50 ***	0.96	**1**	0.68
high	0.61 *	1.21	1.28	1.49

Sources: Familiensurvey 2000, own calculations

Notes: (1) Extract from Model 6, Table 10.5 (2) missing values are not shown but were controlled for (3) ***p $\leq$ 0.01; **0.01 $\leq$ p $\leq$ 0.05; *0.05 $\leq$ p $\leq$ 0.10

For the transition to first union formation we discovered a hidden composition effect for low educated women with *Abitur* and medium educated women with a *Hauptschul*–degree (section 7.3.2). However, after controlling for such a composition effect between women's level of general schooling and her current educational degree we did not observe any significant effects for the transition to subsequent marriage (not shown).

The effect of employment on subsequent marriage formation

Following the order of our first union analysis, we now look at the impact of women's employment characteristics on the transition to subsequent marriage after cohabitation in western Germany (Table 7.10). As for direct marriage formation (section 7.3.2) women's activity status only has a limited effect on subsequent marriage formation. Women in education have a much lower marriage risk than employed or not employed women. Women who

are currently full–time employed have the highest subsequent marriage risks compared to part–time or non–employed women. Being part–time employed reduces marriage risks by 36%. Entering marriage after cohabitation seems to go along with a more stable employment position. A precondition of marriage is obviously a stable economic situation in contrast to non–marital cohabitation. This contradicts the economic independence thesis which states that employed women with a higher earning potential are assumed to avoid marriage more often than women who are non–working.

Table 7.10: Relative risk of entering subsequent marriage according to women's activity status, western German women

	Marriage after cohabitation
Activity status	
Employed	
full–time (ref)	1
part–time	0.64 **
Not employed	
in education	0.47 ***
unemployed	0.81
maternal/parental leave	0.95
inactive	0.93
never employed	0.89

Sources: Familiensurvey 2000, own calculations

Notes: (1) Extract from Model 6, Table 10.5 (2) missing values are not shown but were controlled for (3) ***p $\leq$ 0.01; **0.01 $\leq$ p $\leq$ 0.05; *0.05 $\leq$ p $\leq$ 0.10

The effect of pregnancy and motherhood on subsequent marriage formation

As we see in Table 7.11 the intensity to enter marriage after cohabitation increases after the conception of a child. A first pregnancy leads to a six times higher risk of subsequent marriage formation during the second trimester of the pregnancy. Though marriage intensities become much lower after the birth of the child, they remain higher than for childless and non–pregnant women. This trend with a peak between the third and the sixth month of the pregnancy and a decrease thereafter is very similar to the effect of pregnancy on the transition to direct marriage, however, on a much lower

level.

Table 7.11: Relative risk of entering subsequent marriage after cohabitation according to pregnancy–motherhood–status, western German women

	Marriage after cohabitation
Pregnancy–motherhood–status	
childless, not pregnant (ref)	1
childless, pregnant < 3 months	3.96 ***
childless, pregnant 3-6 months	6.03 ***
childless, pregnant 6-9 months	5.34 ***
mother, child < 6 months	2.83 ***
mother, child > 6 months	1.33 **

Sources: Familiensurvey 2000, own calculations

Notes: (1) Extract from Model 6, Table 10.5 (2) missing values are not shown but were controlled for (3) ***p ≤ 0.01; **0.01 ≤ p ≤ 0.05; *0.05 ≤ p ≤ 0.10

Also for the transition to marriage after cohabitation we are interested whether the effect of pregnancy and motherhood has undergone changes over time by analyzing changes over grouped birth cohorts of the women (Table 7.12). Following the procedure we applied for the competing risk analysis of first union formation we combined five categories into three: 1) childless, not pregnant, 2) childless, pregnant and 3) mother.

Table 7.12: Relative risk of entering subsequent marriage after cohabitation according to pregnancy–motherhood–status by birth cohort, western German women

	childless, not pregnant	*childless, pregnant*	*mother*
1944–1954	1 (ref)	3.81 **	0.95
1955–1964	0.68 ***	5.17 ***	1.23
1965–1974	0.59 ***	2.18 ***	0.81
1975–1982	0.39 ***	1.32	1.70

Sources: Familiensurvey 2000, own calculations

Notes: (1) Table standardized for all variables shown in Tables 10.5 (2) missing values are not shown but were controlled for (3) ***p ≤ 0.01; **0.01 ≤ p ≤ 0.05; *0.05 ≤ p ≤ 0.10

Subsequent marriage intensity dropped primarily for non–pregnant women without children over time: it decreased by 60 % between the oldest cohort

(reference category) and the youngest cohort. The risk of marrying after cohabitation is always higher for pregnant women compared to non–pregnant women but also for this group marriage intensities dropped, in particular for women from the youngest birth cohort. We do not find any significant effects of childbearing on subsequent marriage formation for women who already have children.

Excursus: Variables only available for western Germany

In Table 7.13 we display the effects of the parental background and religious affiliation on marriage formation after cohabitation; variables which we could only analyze for Germany and not for France.

Table 7.13: Relative risk of entering subsequent marriage after cohabitation according to level of religiosity and parental family characteristics, western German women

	Marriage after cohabitation
Level of religiosity	
religious	1.58 ***
somewhat religious	1.27 ***
not religious (ref)	1
Parental divorce	
no (ref)	1
yes	1.13
Education of mother	
low	1.08
medium (ref)	1
high	0.98
Education of father	
low	0.95
medium (ref)	1
high	1.02

Sources: Familiensurvey 2000, own calculations

Notes: (1) Extract from Model 6, Table 10.5 (2) missing values are not shown but were controlled for (3) ***p $\leq$ 0.01; **0.01 $\leq$ p $\leq$ 0.05; *0.05 $\leq$ p $\leq$ 0.10

Just as for the transition to direct marriage, religiosity is an important factor for the transition to subsequent marriage formation. Being religious and often attending church service increases the relative risk of entering marriage after cohabitation by around 60% and by 27% if the women belongs to a religious community and goes to church only several times a year or less. At the same time, there is no effect of parental divorce during childhood on entry into subsequent marriage.

We do not find any significant effect of parent's education on the transition to marriage formation. Contrary to the transition to first direct marriage where we found an overlapping effect of the respondent's educational level and enrollment, the effect of parent's education on subsequent marriage formation does not change after adding control variables (Model 1 to 6 in Table 10.5). While the parental background in the form of parents education is still important for the transition to first union, it is not important anymore for the decision to become married after having already lived in a consensual union.

7.3.4 First birth and subsequent marriage formation

Within this chapter, we would like to analyze more in detail whether marriage formation and childbearing in western Germany are still as closely interrelated as it is suggested in most of the literature and as has also been shown with our data. Our analyzes of the impact of pregnancy and childbearing on marriage formation behavior in western Germany showed a very strong connection between pregnancy and marriage formation. The incidence of a pregnancy leads to dramatic increases in direct marriage risks as well as marriage risks for cohabiting women.

As already elaborated in Chapter 6.2 we analyze both events as interrelated processes. This simultaneous hazard equation approach has been developed by Lillard (1993). Cohabiting, non-pregnant women are under the risk of *either* a first conception *or* a first marriage. Of particular interest is the question whether observed and unobserved individual characteristics simultaneously influence first birth and first marriage. Next to observable factors[53], there are also unmeasured factors including norms in the society

[53]Due to comparative reasons, we only control for age, calendar year, educational en-

and value orientations of individuals which we could not measure directly given a lack of appropriate panel data. Since such unobserved characteristics might affect or bias the results, we account for these unmeasured factors by including an extra term as a random variable in each equation in order to capture variation that is not due to the observed characteristics included in the model. We suppose that both processes – transition to first conception and transition to subsequent marriage formation – share some common unobserved individual characteristics. A more detailed discussion of the methodological proceeding is presented in chapter 6.2 within the paragraph on subsequent marriage formation.

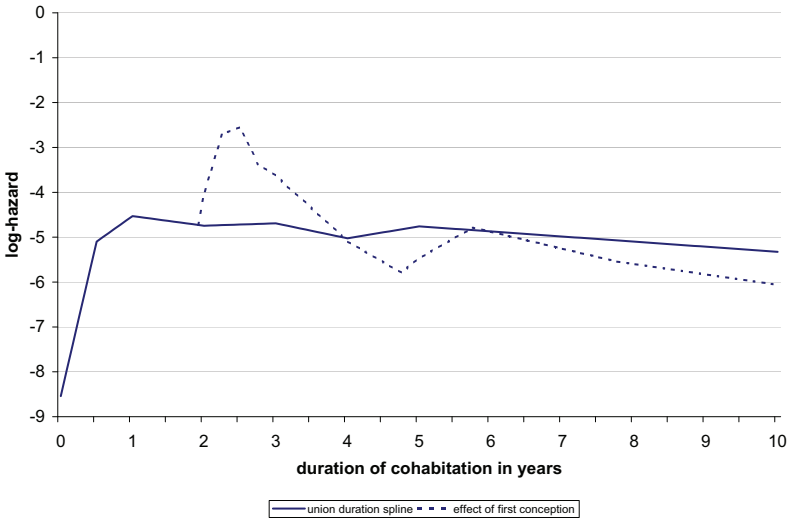
In a first step we model both processes together. Each of these intensities can be affected by either a first marriage in the conception equation or a first conception in the marriage equation. These so-called conditional splines kick in when the woman gets pregnant at a particular union duration or when she gets married at a particular union formation. The advantage of this procedure compared to the piecewise constant model is the linear representation of the conception risk and the closer reproduction of reality. In order to investigate the effect of a first conception on marriage intensity more precisely, we constructed a hypothetical example in which a non-married and childless woman who lives in a cohabitation gets pregnant after 2 years of union duration and compared this effect with women who did not get pregnant. The following graph displays the baseline hazard for a subsequent marriage after cohabitation and the effect of a first conception (Graph 7.34). The time-axis displays the duration of the union in years.

Becoming pregnant during cohabitation increases the risk of a subsequent marriage strongly in the first six months after conception. The intensity of marriage decreases during the second trimester of pregnancy and during the childs first year of age. Two years after conception, marriage intensity falls to levels equal or even under the baseline intensity: marriage rates of mothers become lower than the intensity of marriage of women who did not get pregnant. In other words, pregnant women try to legitimate their child

rollment and attainment, and activity status for western Germany. We do not include parental divorce, religiosity, or parent's education since those covariates are not included in the French data set. Since the results do not change much after we control for the variables mentioned above, we regard this procedure as the best way to make the results as comparable as possible.

before it is born, women who did not get married during their pregnancy or just after, remain unmarried. This suggests that the interrelation between first birth and first marriage is very strong in western Germany.

Figure 7.34: Transition to subsequent marriage: effect of first conception and subsequent childbirth, western German women

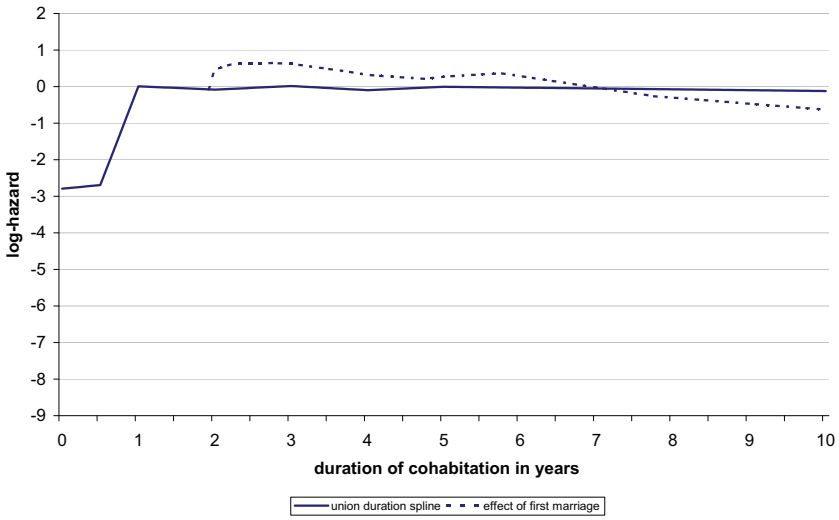


Source: Familiensurvey 2000, own calculations

Notes: (1) Dependent variable: transition to subsequent marriage measured since start of cohabitation (2) Graph controlled for calendar year, current age, current education, activity status

We also model the effect of a first marriage on the transition to a first conception. We constructed a hypothetical example in which a non-pregnant and childless woman who lives in a cohabitation gets married after two years of union duration and compared this effect with women who do not marry (Graph 7.35). The time-axis displays again the duration of the union in years. We find a surprisingly low effect: getting married increases the conception risk for at least five years after marriage. After that time, conception risks decrease and even drop below the conception intensities of cohabiting couples. It seems that women who marry get their first child relatively early after marriage; the longer they are married without a child the lower gets their conception risk and eventually becomes lower than for non–married women.

Figure 7.35: Transition to first conception: effect of a first marriage for cohabiting women, western German women

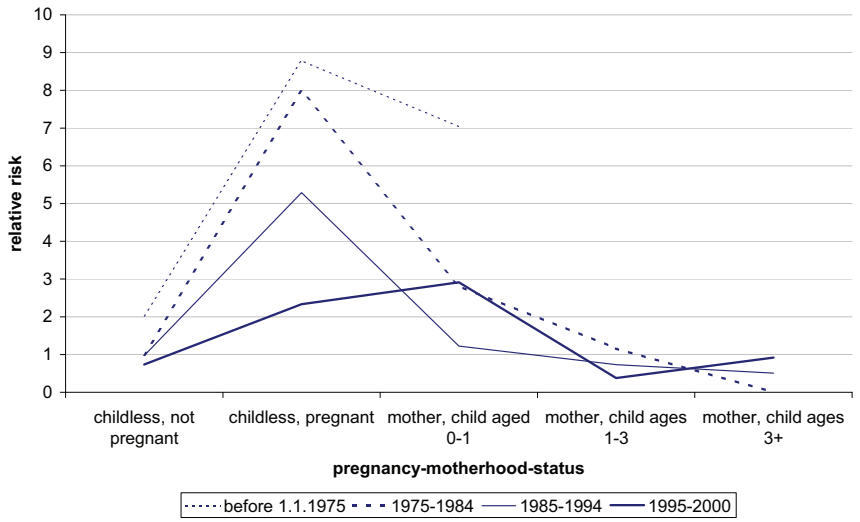


Source: Familiensurvey 2000, own calculations

Notes: (1) Dependent variable: transition to first conception (2) Graph controlled for calendar year, current age, current education, activity status

We are also interested whether there have been changes over time. The following graph (Figure 7.36) displays the transition to subsequent marriage and the effect of an interaction between pregnancy–motherhood–status and calendar year of union formation for western German women. The x-Axis shows the pregnancy–motherhood–status: women who are childless and not pregnant, women who are childless and pregnant and mothers by the age of their child (under 1 year, 1-3 years old, older than three years). Western German women who started cohabiting in the 1970s and early 1980s married much more often during pregnancy than women who cohabited in later years. We find a clear decrease in marriage intensities after pregnancy over time, particularly for women who started cohabitation in the late 1990s marriage does not follow the birth of a child automatically anymore: this development goes parallel with the increase in non-marital births in recent years also in western Germany.

Figure 7.36: Transition to subsequent marriage: interaction between pregnancy–motherhood–status and calendar year of union formation, western German women



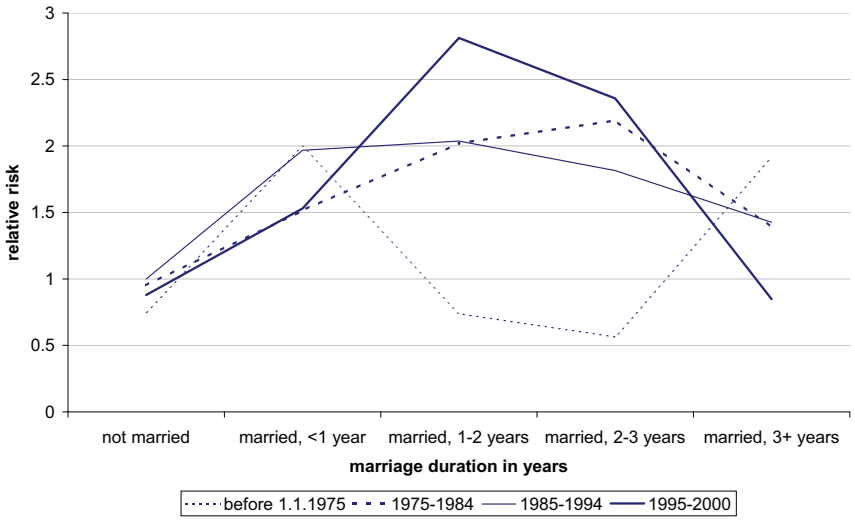
Source: Familiensurvey 2000, own calculations

Notes: (1) Dependent variable: transition to subsequent marriage (2) Graph standardized for all variables shown in Table 10.5

The second graph displays the transition to a first conception and the effect of an interaction between marriage duration and calendar year of union formation (Figure 7.37). The x-Axis shows the marital status: women who are not married and women who are married by the duration of their marriage. Women from consensual unions who married during the 1960s and 1970s display highest rates of childbearing in the first year of their marriage (significantly different from the reference category) and if they were married more than three years (not significant). However, case numbers for these group of women are very small since cohabitation was not widespread during that time. Conception intensity during the first years of marriage increases for women who have started their cohabitation in recent times: they display a significantly higher risk of conception between one and two years of marriage compared to women who started living together in the 1970s or 1980s. This might be interpreted as a sign that the group of married women becomes more selective: once they do get marry they do this with the intension to found a family. It seems that becoming pregnant does not automatically induce a marriage anymore, as has been shown in

Figure 7.36, but that getting married still and even more includes the wish for children: married women seem to become a more select group over time who can be characterized by a high family orientation.

Figure 7.37: Transition to first conception: interaction between marriage duration and calendar year of union formation, western German women



Source: Familiensurvey 2000, own calculations

Notes: (1) Dependent variable: transition to first conception (2) Graph standardized for all variables shown in Table 10.5

In the next step this interrelation process becomes further described by estimating a correlation coefficient between both unobserved heterogeneity factors. We assume that the processes of first birth and first marriage share some unmeasured factors that influence both of them.

We analyzed both processes simultaneously and found a significant correlation coefficient with a positive and significant value of **0.95** (S.E.=0.12***) between unobserved characteristics. There is no substantial change in the effects of covariates, thus our conclusion regarding the influence of women's education or activity status remain unchanged. The correlation in unmeasured factors suggests that conception and marriage are highly interrelated. Women who are most likely to have a first conception (for reasons we do not measure) are also most likely to marry. Both events are part of the same process, namely the couples family formation, and are partially determined by joint factors (observed characteristics like age, women's education

and employment characteristics or historical time) but also by unobserved characteristics. In this parallel process we did *not* control for the effect of marriage in the conception intensity or the effect of conception in the marriage intensity. When controlling for the conditional duration spline for marriage (in the conception equation) or conception (in the marriage equation) we estimate a correlation coefficient of **0.06** (S.E.=0.14). In other words, the whole correlation is due to the interrelation between conception and marriage: there are no other unobserved characteristics left that might influence the transition to first conception and first marriage simultaneously (Table 7.14).

Table 7.14: Unobserved heterogeneity: Standard deviation and correlation, western German women

	not controlling for pregnancy/marriage	controlling for pregnancy/marriage
Conception (U_i)	1.24 ***	1.77 ***
Marriage (V_i)	1.07 ***	1.09 ***
Correlation	0.95 ***	0.06

Sources: Familiensurvey 2000, own calculations

Note: (1) controlled for calendar year, current age, current education, activity status (2) ***p $\leq$ 0.01; **0.01 $\leq$ p $\leq$ 0.05; *0.05 $\leq$ p $\leq$ 0.10

Our results confirm the prevailing existence of child-centered marriages in West Germany. Those who marry have a high intensity to become mothers. However, there are changes over time: while marriage remains and even becomes more important for founding a family, the birth of a child is not as strongly related to marriage anymore as it has been in previous times.

7.4 First union formation in France

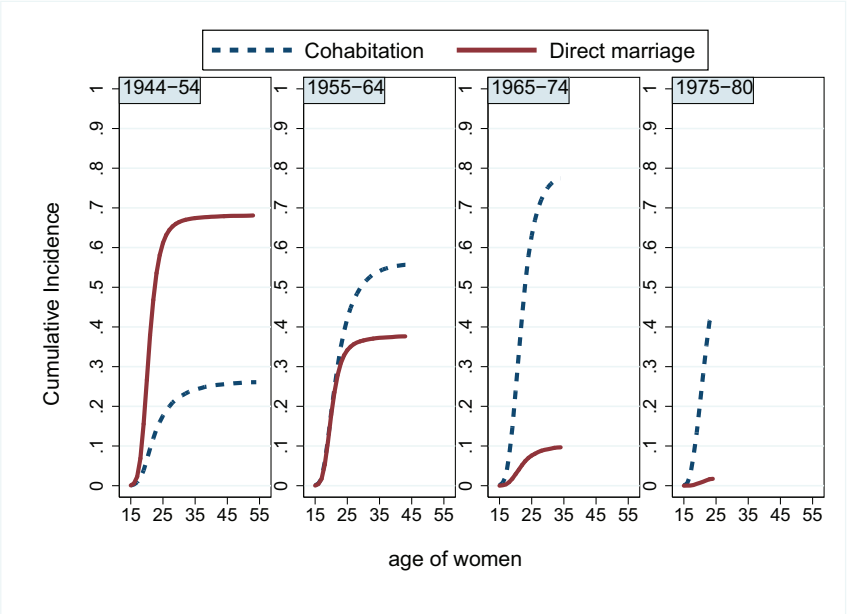
7.4.1 Cumulative incidence curves of first union formation

Following the procedure we already applied for western Germany, we first estimate cumulative incidence curves for competing events – transition to cohabitation vs. direct marriage – to display changes in union formation over birth cohorts and by age of the women in France. The cumulative inci-

dence is a function of the hazards of all the competing events and not solely of the hazard of the event to which it refers (Coviello and Bogges, 2004).

Around 69% of all women born between 1944 and 1954 have been married directly, 27% did cohabit first and around 4% have not been in a first union at all (Figure 7.38). Those women behaved very similarly at first union formation than did western German women. For younger generations, remarkable differences occur. The cross–over in the next-youngest generation (1955-64) is more pronounced in France than it is in western Germany. Direct marriages became a minority as has already been shown for the calendar perspective in Figure 7.7. The youngest women experience direct marriages in exceptional cases only, instead almost all of the women who have already entered a first union have done so in form of non–marital cohabitation.

Figure 7.38: Cumulative incidence of cohabitation and direct marriage for grouped birth cohorts, France (n=133.800)

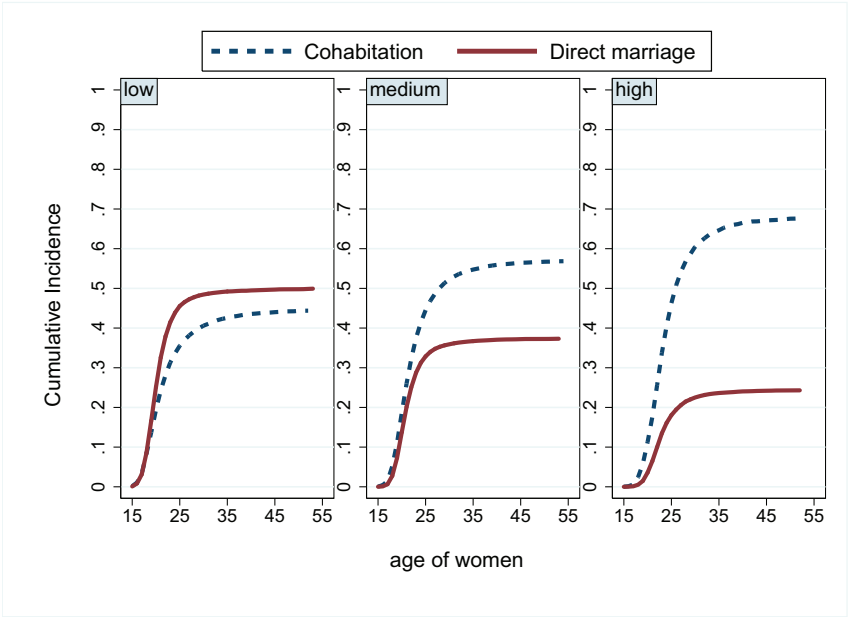


Sources: Étude de l'histoire familiale 1999, own calculations

In the following we display the cumulative incidence curves for the transition to cohabitation vs. direct marriage to investigate changes in union formation over the level of education and by age of the women (the same method as applied in section 7.1). Education in this case is displayed as a

time–constant variable measuring the highest degree attained at interview. It contains the same educational degrees as our time–varying covariate (as defined in chapter 6.6) which can be grouped into low (31%), medium (45%) or high levels of education (24%). The first graph in Figure 7.39 can be be interpreted in the following way: half of the women who ended up with a low education have been married directly, 44% did cohabit first and around 6% of the less qualified women have not been in a first union at all. French women with a medium level of education are more likely to cohabit first (58%) than to marry directly (38%). Women with the highest educational degree show the highest cohabitation rates: around 68% of the highly educated French women start a first union as non–marital cohabitation, 24% marry directly and 8% have not been in a first union until interview date.

Figure 7.39: Cumulative incidence of cohabitation and direct marriage for highest level of education measured at interview, French women (n=122,606[1])



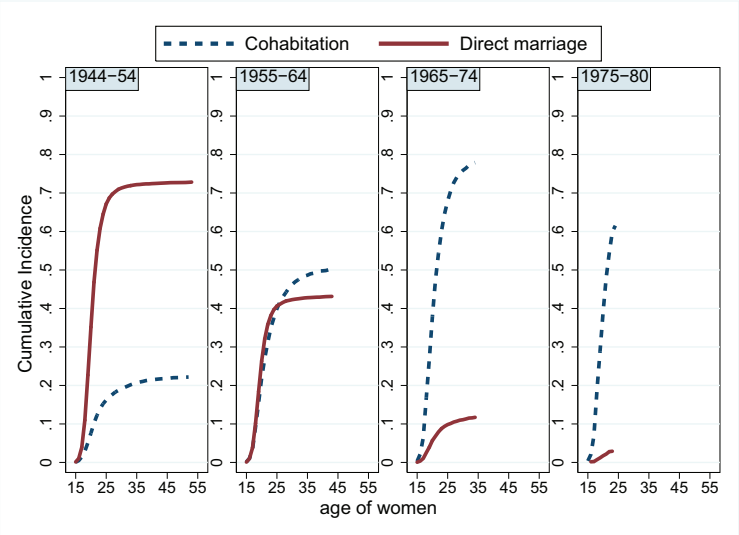
Source: Étude de l'histoire familiale 1999, own calculations [1] We restrict this analysis to women who have already finished their education. Therefore 9,544 respondents were deleted because they were still studying at interview.

One observes a clear postponement effect for women with university degree in the process of first union formation: they are older at first union formation

– both at entry into direct marriage and cohabitation – compared to women with a lower degree.

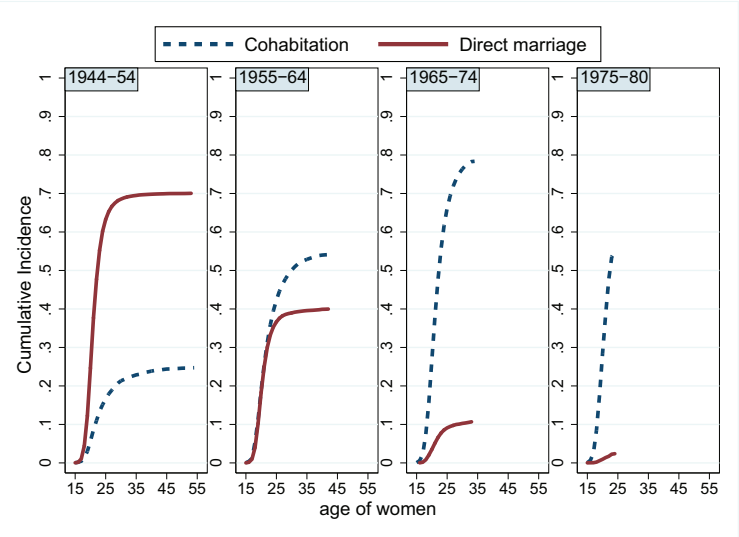
Also for France we are interested whether the increase in cohabiting unions was more pronounced in certain educational groups. We display again cumulative incidence curves to display changes in union formation over the level of education and by birth cohort. As in our former Figure (Figure 7.39) education in this case is displayed as a time–constant variable measuring the highest degree attained at interview. Figure 7.40 represents the cumulative incidence rates for cohabitation and marriage of women who graduated from school with no degree or low levels of education over birth cohorts. We find a strong preference for entering first union as marriage for the oldest birth cohort. Around 72% of the lower educated French women who were born between 1944 and 1954 married directly, 21% started their first union as cohabitation and 7% did not enter any union at all. Cohabitation began to increase for women born afterwards, the cross–over appeared already for women born 1955–64 who more often entered non–marital cohabitation (50%) as first union than direct marriage (42%).

Figure 7.40: Cumulative incidence of cohabitation and direct marriage for women with no or low level of education by grouped birth year of the woman, French women (n=37,867)



Sources: Étude de l'histoire familiale 1999, own calculations

Figure 7.41: Cumulative incidence of cohabitation and direct marriage for women with medium level of education by grouped birth year of the woman, French women (n=55,730)

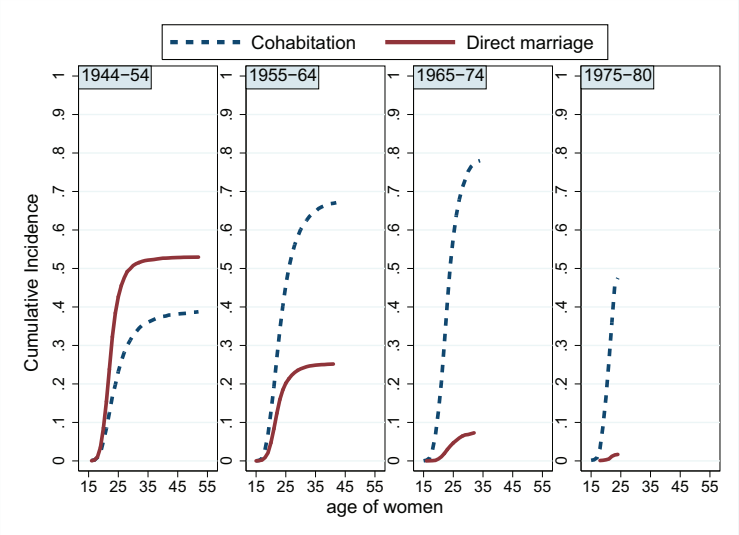


Sources: Étude de l'histoire familiale 1999, own calculations

Figure 7.41 represents the cumulative incidence rates for cohabitation and marriage of women with a medium level of education over birth cohorts. The oldest cohort behaves very similar to the oldest cohort of the low educated women, direct marriage is the most common type of first union with around 70% of women who married directly. Similar to the former group, medium educated women from the second–oldest birth cohort were the first ones who chose non–marital cohabitation as the preferred type of first partnership. There are almost no differences between low and medium educated French women for the two youngest cohorts, cohabitation has become the most popular type of first union for both groups with almost 80%.

Women with tertiary education have higher rates of cohabitation (40%) already in the oldest birth cohort (Figure 7.42). Just as low and medium educated women the cross–over appeared in cohort 1955–64, though the increase in the rate of entry into cohabitation was much stronger. The two youngest birth cohorts show similar cohabitation and marriage rates than the other educational groups. For the youngest women we observe a drop in first union rates.

Figure 7.42: Cumulative incidence of cohabitation and direct marriage for women with high level of education by grouped birth year of the woman, French women (n=29,009)



Sources: Étude de l'histoire familiale 1999, own calculations

Whether first union is only delayed or whether first union rates are becoming lower in general remains to be seen. From this analysis, we conclude that women with higher education have been the forerunners of cohabitation also in France and that low and medium educated women adopted this behavior. Remarkable is the fact that from the birth cohort 1965–74 onwards, all French women, regardless of their educational level, have very similar first union patterns. 80% of the women of this cohort and more than 90% of the youngest cohort start their first union as non–marital cohabitation.

7.4.2 Event history analysis of first union formation

To take into account the influence of personal characteristics as well as social and family background on the changes in the patterns of first union formation in France, we performed an event history modelling which is presented and discussed in the next section.

Following the methodological procedure we already applied for the analysis of western Germany, we run different models in which we introduce

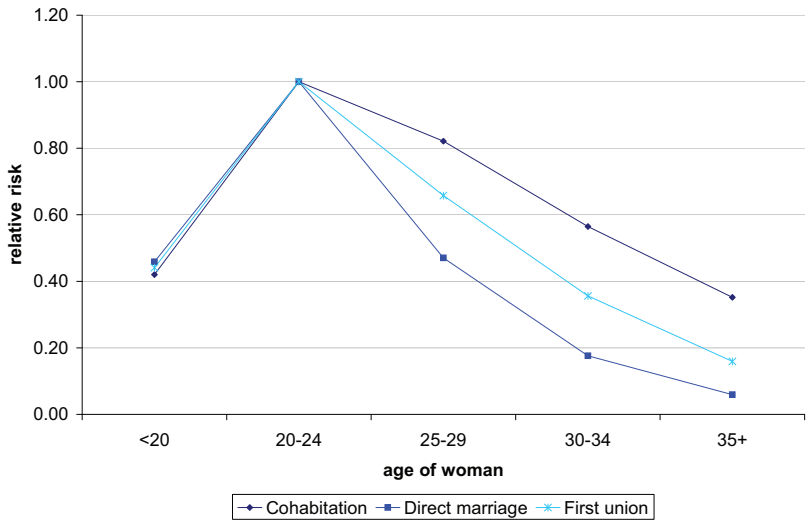
the dependent variables step-by-step to detect how developments over calendar time might be influenced by the impact of explanatory variables. As already mentioned in section 6.6 on the selection of covariates, the event history model for France for the transition to first union contains less variables than for western Germany. We start with a simple model (Model 1) where the baseline (age of the woman) and the birth cohort is included. We then gradually add the rest of the variables: current education (Model 2), activity status (Model 3), and pregnancy–motherhood–status (Model 4). The results of the hazard models are displayed in Table 11.1 (transition to first cohabitation) and Table 11.2 (transition to direct marriage) in Appendix C. The discussion of these results follows in detail in the next paragraphs where we describe the effect of each of the covariates step by step. Additionally, interactions will be presented when applicable.

Age patterns by type of first union

Before we describe the impact on union formation of the major covariates, we will again discuss the shape of the basic process. In Figure 7.43 we display the baseline intensity of the transition to first union for France – for direct marriage, for cohabitation and for all first unions regardless of the type of union.[54] The resulting pattern looks very similar to the baseline intensity of first union for western German women. Also in France, the highest intensity for living in a first union is between ages 20 and 24, afterwards union formation risk decreases. However, relative risks for cohabitation do not decrease as strong as for direct marriage. Women who enter a first non–marital cohabitation show much higher union intensities between the end of their 20s and beginning of the 30s than women who marry directly.

[54]For illustrative reasons we draw a line between the piece-wise constant intensities in all our next graphs instead of displaying them as constant risks over each category.

Figure 7.43: Piecewise-constant baseline intensity for transition to first union, French women

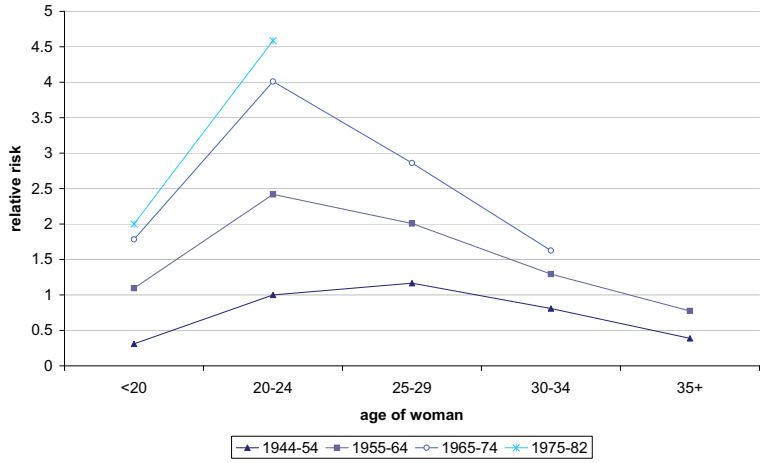


Source: Étude de l'histoire familiale 1999, own calculations

Notes: (1) Dependent variable: transition to first union measured since age 15 (2) Graph standardized for all variables shown in Table 11.1 and 11.2

In the following, we analyze whether this age effect differs across generations by plotting the age patterns of transition to first union by type of union and by birth cohorts (tables 7.44 and 7.45). Over the cohorts, the risk of entering cohabitation as first union has been increasing in all age groups, but particularly in the age group 20–24. The risk of living in cohabitation even quadrupled for French women born between 1965 and 1974 compared to women from the birth cohort 1944-54. Parallel, in Figure 7.45, we see a drastic decrease in the risk of direct marriage over cohorts for all age groups. Marriage intensity already halved between the oldest and second–oldest cohort and is now negligible. Just like in western Germany our results show a remarkable decline in first marriage intensities at all ages and an overwhelming preference for cohabitation as first partnership. However, contrary to western Germany, it seems as if cohabitation has been fully substituted the observed decline in first marriages and even led to increased first union rates.

Figure 7.44: Piecewise-constant baseline intensity for transition to first cohabitation by birth cohort, French women



Source: Étude de l'histoire familiale 1999, own calculations

Notes: (1) Dependent variable: transition to cohabitation measured since age 15 (2) Graph standardized for all variables shown in Table 11.1

Figure 7.45: Piecewise-constant baseline intensity for transition to first direct marriage by birth cohort, French women

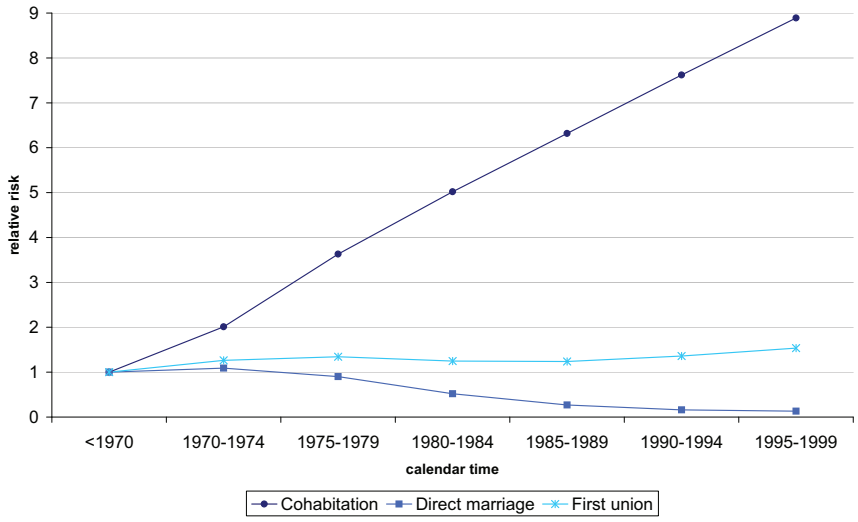
Source: Étude de l'histoire familiale 1999, own calculations

Notes: (1) Dependent variable: transition to direct marriage measured since age 15 (2) Graph standardized for all variables shown in Table 11.2

Period perspective by type of first union

The development of cohabitation and direct marriage over calendar time is displayed in figure 7.46. For the interactions with calendar time we estimated separate models in which we included calendar time instead of birth cohort. Results for this estimations are presented in Table 11.3 in Appendix C. The intensity of direct marriage started to decrease in the beginning of the 1980s, somewhat later than in western Germany. But already in the 1970s, a significant increase in the risk of entering a consensual union is observed. This increase has not slowed down over time but shows a constant upward–trend. We observe a very constant development of first union intensity over time with a slight increase in the 1990s, as has already been shown for the development over birth cohorts. The risk of entering first union in the late 1990s is 1.5 times higher than for women who started they partnership during the 1960s: almost all first unions are nowadays cohabiting unions which therewith more than 100% replaced direct marriages as first union.

Figure 7.46: First union formation intensities by calendar time, French women

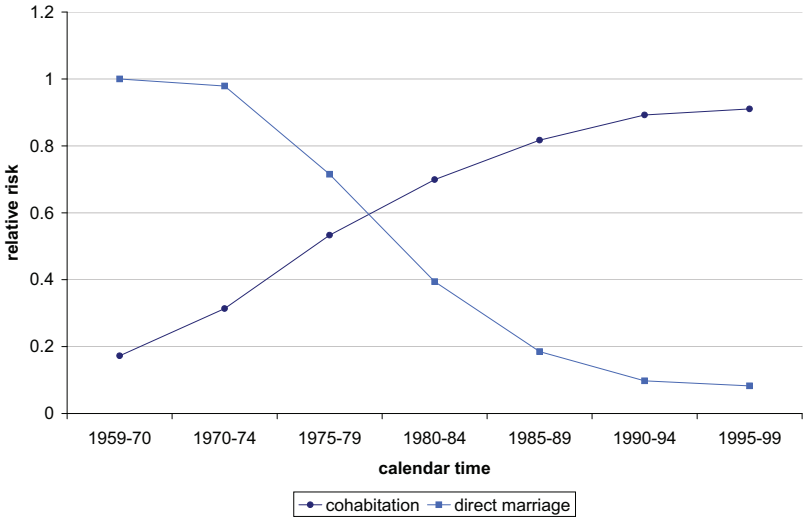


Source: Étude de l'histoire familiale 1999, own calculations

Notes: (1) Dependent variable: transition to first union measured since age 15 (2) Graph standardized for all variables shown in Table 11.3 in Appendix C

Also for France, we investigate more deeply how the fall in the rate of entry into marriage has been accompanied by a compensating increase in the rate of entry into cohabitation. The advantage of this procedure lies in the direct comparison of the trends over calendar time across the two competing risks. A more detailed description of this method is given in Chapter 6, Section 6.2. Figure 7.47 displays the rates of entry into non–marital cohabitation and into direct marriage during the period 1959-1999, relative to the risk of marrying directly in the 1959-1970 period.

Figure 7.47: First union formation intensities by type of union and calendar time, French women



Source: Étude de l'histoire familiale 1999, own calculations

Notes: (1) Dependent variable: transition to first union measured since age 15 (2) Rates calculated in a joint model of the two transitions (Table 11.4 in Appendix C) (3) Reference category: direct marriage in the period 1959-1970 (4) Controlled for age of woman

Direct marriage risks start to decline in the last half of the 1970s while the risk of entry into cohabitation already increases in the beginning of the 1970s. Just as in western Germany the initial marriage risk was more than eight times higher than the entry risk for consensual unions. It then declined considerably and since the beginning of the 1980s the risk of starting a first union as cohabitation is higher than the direct marriage risk. From this time onwards, cohabitation has become the most common type of first union in France. It is more than 80% higher in the last observed period, 1995-1999, than in the period before 1970. The rates of direct marriage

dropped by more than 90%. We conclude that through the strong increase in cohabiting unions, cohabitation does more than compensate for the steep increase in direct marriage rates starting in the 1970s, it even led to higher partnership rates in principle.

The effect of education on first union formation

In addition to the analyzes of the impact of education on first union formation by means of cumulative incidence curves (section 7.4.1) we now display the results of the effect of educational attainment and educational enrollment on the transition to cohabitation and direct marriage estimated with the proportional hazard model in more detail (Table 7.15). Since the educational gradient does not change substantially after including our control variables, we only show the last model (Model 4) where we control for all other relevant characteristics (extracts from Model 4, Tables 11.1 and 11.2). For a detailed description of each educational group see again the definition of education in chapter 6.6).

Table 7.15: Relative risk of entering first union by type of union according to level and enrollment in education, French women

	Cohabitation	Direct marriage
Level of education		
in education	0.30 ***	0.14 ***
out of education – low	0.91 ***	0.91 ***
out of education – medium (ref)	1	1
out of education – high	1.18 ***	0.89 ***

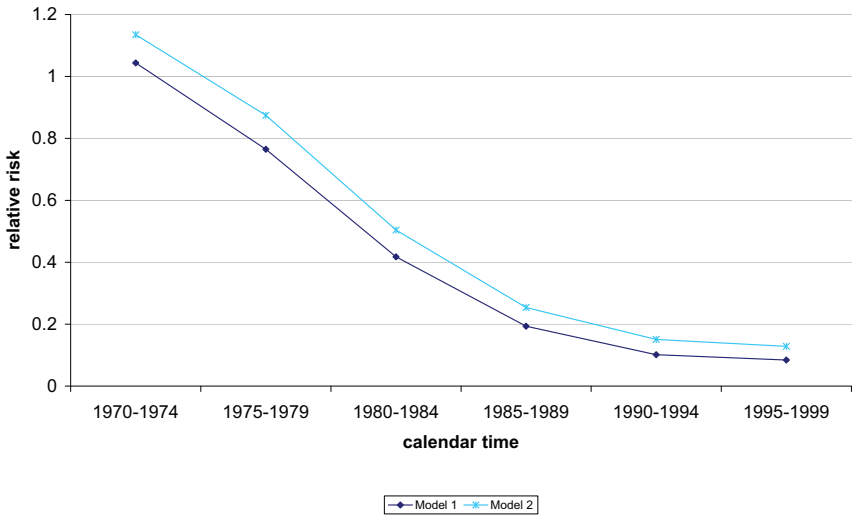
Source: Étude de l'histoire familiale 1999, own calculations
Notes: (1) Extract from Model 4, Tables 11.1 and 11.2 (2) missing values are not shown but were controlled for (3) ***p $\leq$ 0.01; **0.01 $\leq$ p $\leq$ 0.05; *0.05 $\leq$ p $\leq$ 0.10

Being enrolled in education has a very strong negative effect on the intensity of direct marriage. It has a negative effect on the transition to cohabitation as well, but this effect is not as strong as it is for entry into direct marriage. Women with a university degree have a 18% higher risk to enter cohabitation as first union compared to medium educated women in France and a 30% higher risk compared to low educated women. In addition,

they also have significantly lower direct marriage intensities. Women with no educational degree or only lower secondary degree have a slightly lower risk of entering cohabitation as first union compared to medium educated women. Having a low or a high educational degree decreases direct marriage intensities by around 10%.

After we control for the effect of respondent's education on entry into union formation, we observe a diminishment of the strong negative period effect over the different models. Figure 7.48 displays the development of direct marriage intensities over time compared for all models.

Figure 7.48: Relative risk of entering direct marriage by calendar time over Model 1 and Model 2, French women



Source: Étude de l'histoire familiale 1999, own calculations

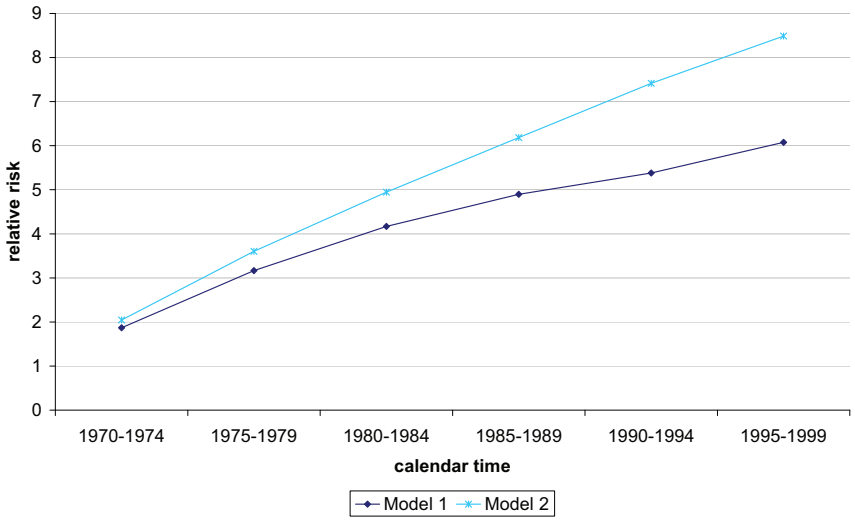
Notes: (1) Dependent variable: transition to direct marriage measured since age 15 (2) Graph standardized for all variables shown in Table 11.3 in Appendix C

The gap between Model 1 and Model 2 is significantly different on a 95% level for all calendar periods. This means that the differences between both models can be explained by changes in the effects of education. The process of educational expansion in France was very rapid and, compared to the 1970s as a benchmark, more far–reaching than in Germany (see again chapter 4.4.1). The share of low educated women, who have a generally higher risk of entering direct marriage and a lower risk of entry into cohabitation than higher educated women has been strongly decreasing over time. While

more than half of the women who entered their first union during the 1960s have attained only a low education, this number declined to 15% for women who formed a first union in the last half of the 1990s.

At the same time, the positive effect of entry into cohabitation for calendar time has been significantly amplified after including current education into the model (Figure7.49). For the last period, 1994–1999, cohabitation intensity has been increasing up to 40% after we controlled for the effect of education. The other control variables did not cause such significant differences. We conclude that the shift in the proportion of the respective levels of education over time is part of the explanation for the decrease in direct marriage intensities as well as the increase in the risk of entry into cohabitation over calendar time.

Figure 7.49: Relative risk of entering cohabitation by calendar time over Model 1 and Model 2, French women



Source: Étude de l'histoire familiale 1999, own calculations

Notes: (1) Dependent variable: transition to cohabitation measured since age 15 (2) Graph standardized for all variables shown in Table 11.3 in Appendix C

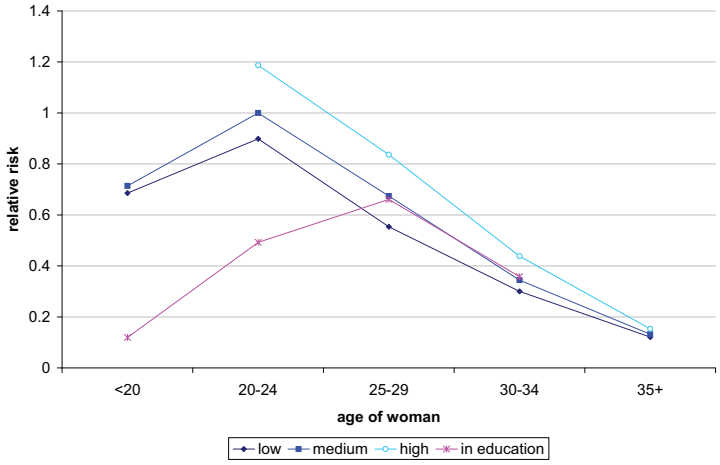
Interaction between current education and age of the woman

Following the procedure we already applied for western Germany, we investigate whether the educational differences in entry into first union are influenced by different lengths of schooling.

The next figures show an interaction between the the baseline and women's education (Figures 7.50 and 7.51). Contrary to western Germany, rates for highly educated women are displayed also for ages 20–24, since French women finish tertiary education earlier than their western German counterparts[55]. French women show similar age patterns at first union formation, regardless of the level of education and the type of union with a peak at ages 20-24. Highly educated women show significantly higher intensities of cohabitation than women with low or medium education in all observed age groups. The age pattern for women enrolled in education differs from those who are already out of the educational system: they show highest cohabitation rates at age 25–29. However, it is not higher than for women out of education, as has been observed for Germany. Direct marriage rates (Figure 7.51) show a similar age pattern as has been observed for the transition to cohabitation, but with a stronger focus on the age group 20–24 and lower rates before age 20. We do not find great differences between the relative direct marriage risks related to education as we did for cohabitation. Being enrolled in education and getting married is very rare: the risk of marrying directly is much lower for women who are still studying over all age groups compared to women who are out of education.

[55]French university students rather rarely graduate later than age 24 (Scherer and Kogan, 2004), one reason for that is the existence of short cycle education such as the DEUG (Diplôme d'Etudes Universitaires Générales)

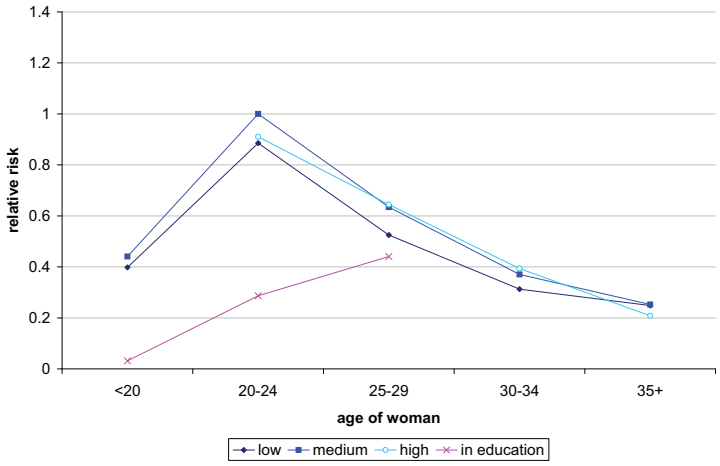
Figure 7.50: Relative risk of entering cohabitation by level of education and age of the woman, French women



Source: Étude de l'histoire familiale 1999, own calculations

Notes: (1) Dependent variable: transition to cohabitation measured since age 15 (2) Graph standardized for all variables shown in Table 11.1

Figure 7.51: Relative risk of entering direct marriage by level of education and age of the woman, French women



Source: Étude de l'histoire familiale 1999, own calculations

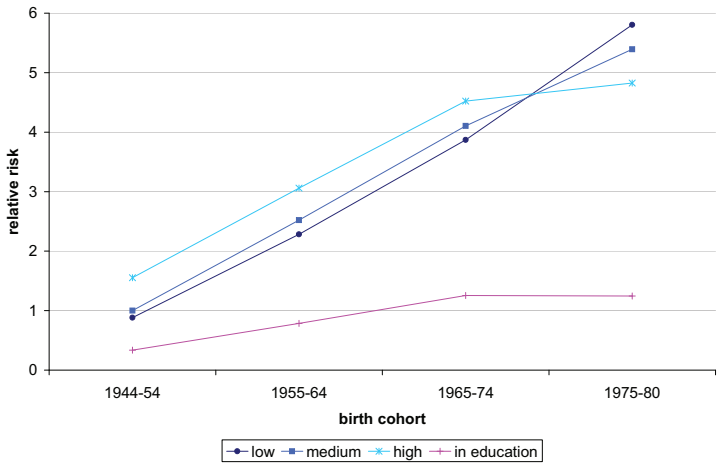
Notes: (1) Dependent variable: transition to direct marriage measured since age 15 (2) Graph standardized for all variables shown in Table 11.2

Interaction between current education and birth cohort of the woman

Whether the increase in cohabiting unions since the 1970s and 1980s was more pronounced in certain educational groups than in others is part of the further analyzes. Our results from the analysis of cumulative incidence curves showed that women with higher education have been the forerunners of cohabitation also in France and that low and medium educated women adopted this behavior two cohorts later. In line with this finding, our hazard model shows a similar picture.

In Figures 7.52 and 7.53 we display the interaction between education and birth cohort of the woman. The relative risk of entry into first union as non–marital cohabitation is highest for highly educated women in the three oldest birth cohorts. For young women with tertiary education we see a slight reduction in the rise of cohabitation intensities, however, we have to keep in mind that part of these women are very young (18 to 24) and might postpone union formation to later ages. Low and medium educated women show a similar increase in the risk of entry into cohabitation while for the youngest cohort less educated women now show higher cohabitation risks than medium or high educated women. The relative risk of entering first union as cohabitation while being in education has been increasing over birth cohorts and remained stable for the two youngest cohorts. The risk of entering direct marriage as first union is strongly decreasing over all cohorts and by each educational group. There are only minor differences by level of education. The relationship between being in education and entering direct marriage is negative. Nowadays the risk is negligible. Direct marriage risks dropped by more than 90% between the oldest cohort and youngest women.

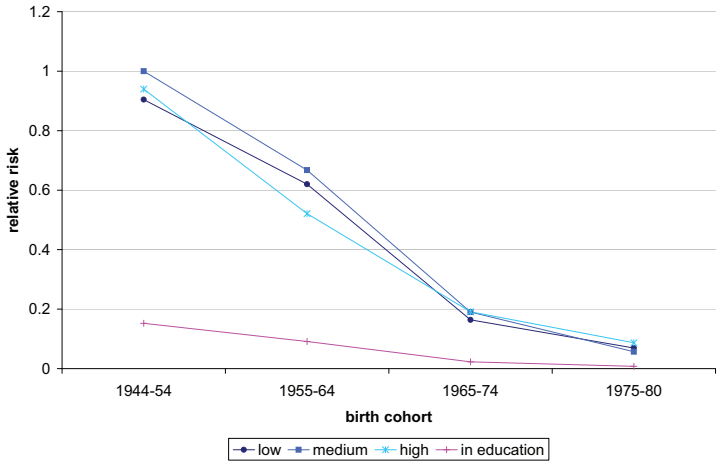
Figure 7.52: Relative risk of entering cohabitation by level of education and birth cohort of the woman, French women



Source: Étude de l'histoire familiale 1999, own calculations

Notes: (1) Dependent variable: transition to cohabitation measured since age 15 (2) Graph standardized for all variables shown in Tables 11.1

Figure 7.53: Relative risk of entering direct marriage by level of education and birth cohort of the woman, French women



Source: Étude de l'histoire familiale 1999, own calculations

Notes: (1) Dependent variable: transition to direct marriage measured since age 15 (2) Graph standardized for all variables shown in Table 11.2

The effect of employment on first union formation

In the following section we look at the impact of women's employment characteristics on first union formation. In Table 7.16 we estimated the relative risk of entering a first union by French women's activity status. In contrast to the elaborated employment categorization for western Germany, due to data restrictions we can only differentiate between employed, not employed, never employed (see again section 6.6 for the explanation of the variables).

Table 7.16: Relative risk of entering first union by type of union according to women's activity status, French women

	Cohabitation	Direct marriage
Activity status		
in education	0.29 ***	0.13 ***
employed (ref)	1	1
not employed	0.97 **	1.07 ***
never employed	0.65 ***	0.99

Étude de l'histoire familiale 1999, own calculations

Notes: (1) Extract from Model 4, Tables 11.1 and 11.2 (2) missing values are not shown but were controlled for (3) ***p $\leq$ 0.01; **0.01 $\leq$ p $\leq$ 0.05; *0.05 $\leq$ p $\leq$ 0.10

As in western Germany, women's activity status only has a limited effect on direct marriage formation. Women who interrupted their employment for at least two years (included in the category not employed) show slightly higher direct marriage intensities than women who are employed. Women in education have a much lower risk than employed or otherwise not employed women. In contrast to western Germany, entering cohabitation as first union does not go along with a more unstable employment position. The relative risk of entering cohabitation does not differ between non–employed and employed women. It is even 35% lower for women who are never employed. However, also in France the proportion of women who enter a first union out of non–employment or inactivity is low: 7.4% of all person–months at risk were undergone as not employed, for never employed women this accounts for 2.1%. The majority in France is currently either in education or employed while they are at risk of a first union.

The effect of pregnancy and motherhood on first union formation

In this section we investigate the relationship between becoming a mother and entering a first union in France. As we see in Table 7.17 the intensity to enter a first union, either as cohabitation or direct marriage, increases after the conception of a child. Similar to western Germany, the impact of pregnancy and motherhood on the intensity of union formation is much stronger for direct marriage than for cohabitation. The first pregnancy leads to an extremely high rise of the first marriage intensity – it is more than 19 times higher between the third and sixth month of the pregnancy than for non–pregnant childless women. In the first six months of the pregnancy, we observe an increase in direct marriage intensity, followed by a decrease. After the birth of the child direct marriage risks are even lower than for childless, not pregnant women. Pregnancy also increases the intensity of entering into non–marital cohabitation, but to a lesser extent. However, cohabitation intensities are higher for French women who become pregnant in comparison to western German women. Also in France, the duration of pregnancy differs in comparison to direct marriage. While direct marriage intensities peak during the first six months of the pregnancy and decrease strongly thereafter, French women display higher cohabitation rates during the whole period of pregnancy. They also show relatively high cohabitation intensities after the birth of the child.

Table 7.17: Relative risk of entering first union by type of union according to pregnancy–motherhood–status, French women

	Cohabitation	Direct marriage
Pregnancy–motherhood–status		
childless, not pregnant (ref)	1	1
childless, pregnant < 3 months	4.57 ***	11.64 ***
childless, pregnant 3-6 months	3.93 ***	19.68 ***
childless, pregnant 6-9 months	4.25 ***	5.74 ***
mother, child < 6 months	2.08 ***	2.13 ***
mother, child > 6 months	1.1 ***	0.85 ***

Sources: Étude de l'histoire familiale 1999, own calculations

Notes: (1) Extract from Model 4, Tables 11.1 and 11.2 (2) missing values are not shown but were controlled for (3) ***p $\leq$ 0.01; **0.01 $\leq$ p $\leq$ 0.05; *0.05 $\leq$ p $\leq$ 0.10

In addition, we analyze whether the effect of pregnancy and motherhood has underwent changes over time. In Tables 7.18 and 7.19 the interaction between birth cohort and pregnancy–motherhood–status is displayed. For a better comparability with western Germany we again combined five categories into three: 1) childless, not pregnant, 2) childless, pregnant and 3) mother.

Table 7.18: Relative risk of entering first union by cohabitation according to pregnancy–motherhood–status by birth cohort, French women

	childless, not pregnant	*childless, pregnant*	*mother*
1944–1954	1 (ref)	4.99 **	1.59 ***
1955–1964	2.59 ***	9.72 ***	2.73 **
1965–1974	4.09 ***	16.82 ***	4.90 ***
1975–1980	4.62 ***	28.34 ***	11.01 ***

Sources: Étude de l'histoire familiale 1999, own calculations

Notes: (1) Graph standardized for all variables shown in Table 11.1 (2) missing values are not shown but were controlled for (3) ***p $\leq$ 0.01; **0.01 $\leq$ p $\leq$ 0.05; *0.05 $\leq$ p $\leq$ 0.10

Table 7.19: Relative risk of entering first union by direct marriage according to pregnancy–motherhood–status by birth cohort, French women

	childless, not pregnant	*childless, pregnant*	*mother*
1944–1954	1 (ref)	13.14 ***	0.99
1955–1964	0.66 ***	8.64 ***	0.57 ***
1965–1974	0.19 ***	1.97 ***	0.32 ***
1975–1980	0.06 ***	0.80	0.20 ***

Sources: Étude de l'histoire familiale 1999, own calculations

Notes: (1) Graph standardized for all variables shown in Table 11.2 (2) missing values are not shown but were controlled for (3) ***p $\leq$ 0.01; **0.01 $\leq$ p $\leq$ 0.05; *0.05 $\leq$ p $\leq$ 0.10

In contrast to western Germany, where the relative risk of entering cohabitation has been increasing most for non–pregnant women, in France cohabitation intensity increased mostly for mothers and pregnant women. For mothers, it is almost seven times higher for women born between 1975 and 1980 compared to the oldest cohort of women. The highest overall cohabitation intensity have pregnant women, who have a 5.6 times higher risk when they belong to birth cohort 1975-1982 compared to the oldest

cohort. In France, pregnant women or mothers have much higher cohabitation rates than childless women. Contrary to the development of entry into cohabitation, direct marriage intensities dropped for all women over time. For non–pregnant women, the relative risk of entering direct marriage has decreased by almost 100% between the oldest cohort (reference category) and the youngest cohort. Similar to western Germany, shot–gun marriages experienced the most dramatic decrease: young women marry as often or even less when they are pregnant as do non–pregnant women, while the oldest women in our data set (born between 1944 and 1954) had an almost 13 times higher risk to enter direct marriage during pregnancy than childless, non–pregnant women. While western German women show higher direct marriage rates over time compared to childless women, the relative risk of marrying while already being a mother decreased by 80% in France.

Compared to western Germany, we do not see a relevant diminishment of the strong negative period effect over the different models after the inclusion of the pregnancy–motherhood–status variable. In France it is not the decline of the positive effect of pregnancy on marriage formation that has a strong explanatory power for the drop in direct marriage risks over time. It is rather the shift in the proportion of the respective levels of education over time as we already demonstrated in the section on the effect of education on first union formation.

7.4.3 Transition to subsequent marriage

Again, we are interested in the further development of cohabiting unions. We only discuss the results for marriage formation after cohabitation since our theoretical considerations focus on the aspect of union formation. We treat women who separate during the time of observation as censored. If women remain in cohabitation until interview date, they become right–censored.

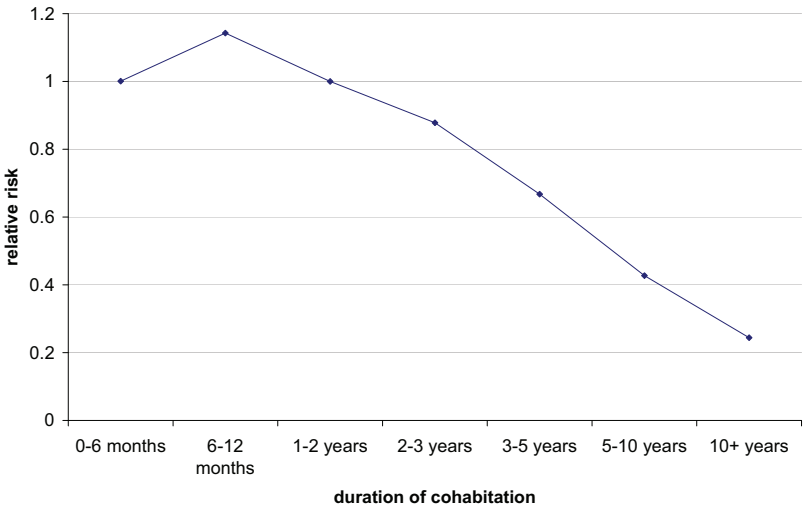
As for the analysis of first union formation, we run different models in which we introduce the dependent variables step-by-step to detect how changes over calendar time might be influenced by changes in the effect of explanatory variables. We start with a simple model (Model 1) where the baseline (time since start of cohabitation), the age of the woman and the calendar time resp. birth cohort is included. We then gradually add the rest of the variables: current education (Model 2), activity status (Model 3),

and pregnancy–motherhood–status (Model 4). Detailed results of all models are presented in Table 11.5 in Appendix C whereas the effect of each of the covariates is described step by step in the following paragraphs.

Duration of cohabitation and age of subsequent marriage formation

In a first step, we display the baseline intensity of the transition to subsequent marriage formation for France (Figure 7.54) which starts at the beginning of the first cohabitation. Marriage risks show a clear peak in the first year of cohabitation. Contrary to western Germany, where marriage intensity remains relative stable up to 10 years after first union formation, for France we observe a drastic decline after more than three years of union formation for those women who decide to marry.

Figure 7.54: Piecewise-constant baseline intensity for transition to subsequent marriage, French women



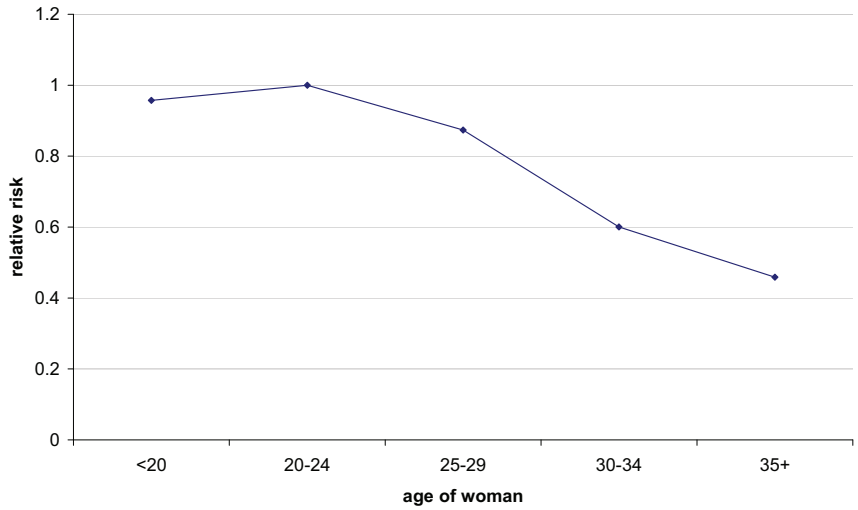
Source: Étude de l'histoire familiale 1999, own calculations

Notes: (1) Dependent variable: transition to subsequent marriage measured since start of cohabitation (2) Graph standardized for all variables shown in Table 11.5

French women who marry after being already in a non–marital cohabitation display a different age pattern compared to the transition to direct marriage, but resemble that of women who enter cohabitation (Figure 7.55). The highest risk of getting married after cohabitation can be found among women who are between ages 20 and 24. But also younger women show

similar marriage risks. After age 25 marriage intensities decrease, women who are older than 35 years of age have the lowest transformation rates into marriage in France.

Figure 7.55: Subsequent marriage formation intensities by age of the woman, French women

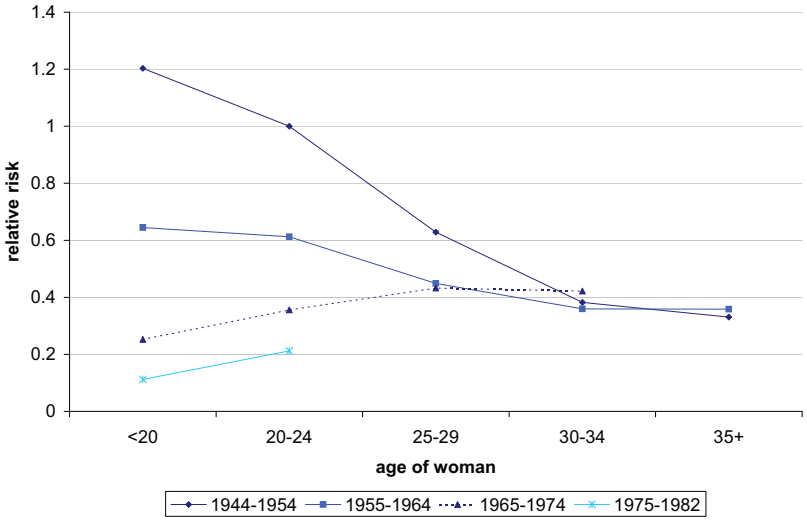


Source: Étude de l'histoire familiale 1999, own calculations

Notes: (1) Dependent variable: transition to subsequent marriage measured since start of cohabitation (2) Graph standardized for all variables shown in Table 11.5

Equally to the analysis of western Germany, in a further step we clarify the distribution of subsequent marriage risks over age by birth cohorts, by estimating interaction effects between age and cohort (Figure 7.56). While for the oldest cohort, marriage risks show a clear downward trend after age 20, women born between 1955 and 1964 display more equally distributed marriage risks over the age groups. Younger women (born after 1965) are much older at marriage formation with highest rates for the age groups 25–29 and 30–34. At the same time marriage intensities decrease over generation.

Figure 7.56: Subsequent marriage formation intensities by age of the woman and birth cohort, French women



Source: Étude de l'histoire familiale 1999, own calculations

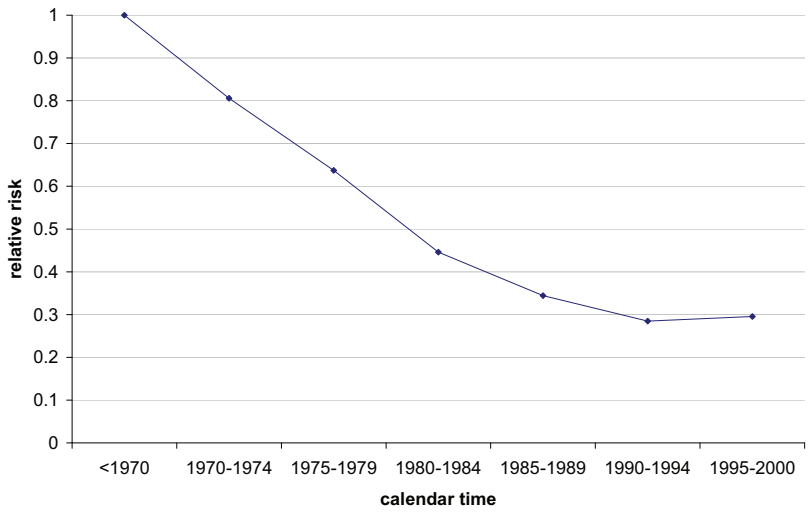
Notes: (1) Dependent variable: transition to subsequent marriage measured since start of cohabitation (2) Graph standardized for all variables shown in Table 11.5

Effect of calendar time

The development of the transformation of cohabitation into subsequent marriage over certain time periods is displayed in Figure 7.57.[56] Marriage risks decreased drastically since the 1970s. The reduction in marriage intensities has been faster and to a greater extend in France than in western Germany. French women in the 1990s had a 70% lower risk to marry after cohabitation than women born in the 1960s. For the last part of the 1990s we observe a stabilization of marriage intensities: there is no further decrease in marriage rates for women who cohabited between 1990 and 1994 and those who entered a non–marital cohabitation between 1995 and 1999.

[56]For the interaction with calendar time we estimated separate models in which we included calendar time instead of birth cohort. Results for this estimations are presented in Table 11.6 in Appendix C.

Figure 7.57: Subsequent marriage formation intensities by calendar time, French women



Source: Étude de l'histoire familiale 1999, own calculations

Notes: (1) Dependent variable: transition to subsequent marriage measured since start of cohabitation (2) Graph standardized for all variables shown in Table 11.6 in Appendix C

The effect of women's education on subsequent marriage formation

We now display the effect of the respondent's educational attainment and educational enrollment on the transition to marriage after cohabitation (Table 7.20). Unfortunately, partner's educational level has not been questioned within the French EHF, therefore we cannot compare the western German results for women's partners characteristics with France. We show the last model (Model 4) where we control for all other relevant characteristics (extract from Model 4, Table 11.5). As for western Germany, a clear reduced marriage risk can be observed for women who are still in education. Their risk to become married after cohabitation is only half of that of women who are already out of education. However, different to the western German results where we could not find any significant differences between the respective levels of education, in France a positive effect of education can be observed. Highly educated women show a significantly higher risk of marriage formation while women with a low educational qualification display lower marriage rates compared to the reference category of middle educated French women.

Table 7.20: Relative risk of entering marriage after cohabitation according to woman's level and enrollment in education, French women

	Marriage after cohabitation
Level of education	
in education	0.48 ***
out of education – low	0.87 ***
out of education – medium (ref)	1
out of education – high	1.09 ***

Étude de l'histoire familiale 1999, own calculations

Notes: (1) Extract from Model 4, Table 11.5 (2) missing values are not shown but were controlled for (3) ***p $\leq$ 0.01; **0.01 $\leq$ p $\leq$ 0.05; *0.05 $\leq$ p $\leq$ 0.10

The effect of employment on subsequent marriage formation

In Table 7.21 we estimate the relative risk of entering a first union by French women's activity status. Again, due to data restrictions we can only differentiate between employed, not employed, never employed (see again section 6.6 for the explanation of the variables).

Table 7.21: Relative risk of entering subsequent marriage according to women's activity status,French women

	Marriage after cohabitation
Activity status	
in education	0.48 ***
employed (ref)	1
not employed	1.15 ***
never employed	1.02

Étude de l'histoire familiale 1999, own calculations

Notes: (1) Extract from Model 4, Table 11.5 (2) missing values are not shown but were controlled for (3) ***p $\leq$ 0.01; **0.01 $\leq$ p $\leq$ 0.05; *0.05 $\leq$ p $\leq$ 0.10

Similar to the effect of direct marriage in France, women who interrupted their employment for at least two years (included in the category not employed) show 1.15 times higher subsequent marriage intensities than women who are currently employed. There is no significant difference between employed women and women who have been never employed. This result is

contrary to the effect of employment in western Germany, where full–time employed women have the highest subsequent marriage risk compared to part–time or non–employed women.

The effect of pregnancy and motherhood on subsequent marriage formation

Also in France, the intensity to enter marriage after cohabitation increases after the conception of a child (Table 7.22).

Table 7.22: Relative risk of entering subsequent marriage after cohabitation according to pregnancy–motherhood–status, French women

	Marriage after cohabitation
Pregnancy–motherhood–status	
childless, not pregnant (ref)	1
childless, pregnant < 3 months	2.86 ***
childless, pregnant 3-6 months	3.52 ***
childless, pregnant 6-9 months	1.34 ***
mother, child < 6 months	1.08 ***
mother, child > 6 months	0.87 **

Étude de l'histoire familiale 1999, own calculations

Notes: (1) Extract from Model 4, Table 11.5 (2) missing values are not shown but were controlled for (3) ***p $\leq$ 0.01; **0.01 $\leq$ p $\leq$ 0.05; *0.05 $\leq$ p $\leq$ 0.10

However, the strength of this effect is much weaker than in western Germany. A first pregnancy leads to a 3.5 times higher risk of subsequent marriage formation during the second trimester of the pregnancy compared to a six times higher risk in western Germany. What is remarkable about France is the fact that marriage intensities of mothers fall under the level of childless and non–pregnant women after the birth of the child. This trend with a peak between the third and the sixth month of the pregnancy and a decrease after the birth of the child is very similar to the effect of pregnancy on the transition to direct marriage, however, on a much lower level. Worth mentioning in this context is the high share of women who are at risk of marriage after the birth of the child: 35% of all of all person–months at risk were undergone as mothers with older children while this accounts to only 5% for western German women. This indicates a high share of mothers

with non–marital births in France with a low risk of getting married afterwards: If they do not get married during pregnancy or the first months after birth, they have low chances to do so after the child is older than six months.

Also for the transition to marriage after cohabitation we are interested whether the effect of pregnancy and motherhood has underwent changes over time by analyzing changes over grouped birth cohorts of the women (Table 7.23). Following the procedure we applied for the competing risk analysis of first union formation we combined five categories into three: 1) childless, not pregnant, 2) childless, pregnant and 3) mother.

Table 7.23: Relative risk of entering subsequent marriage after cohabitation according to pregnancy–motherhood–status by birth cohort, French women

	childless, not pregnant	*childless, pregnant*	*mother*
1944–1954	1 (ref)	3.50 ***	0.72 ***
1955–1964	0.69 ***	1.92 ***	0.58 ***
1965–1974	0.46 ***	0.90 ***	0.50 ***
1975–1982	0.18 ***	0.54 ***	0.37 ***

Étude de l'histoire familiale 1999, own calculations

Notes: (1) Table standardized for all variables shown in Tables 11.5 (2) missing values are not shown but were controlled for (3) ***p $\leq$ 0.01; **0.01 $\leq$ p $\leq$ 0.05; *0.05 $\leq$ p $\leq$ 0.10

Subsequent marriage intensity dropped dramatically for non–pregnant *and* pregnant French women over time: it decreased by more than 80% between the oldest cohort (reference category) and the youngest cohort. Contrary to western Germany, we also observe a significant drop in subsequent marriage intensities for women who already have children over generations. Already women from the oldest generation had a lower risk of marriage after cohabitation after childbearing. This risk dropped again by 50% for French women born after 1975.

7.4.4 First birth and subsequent marriage formation

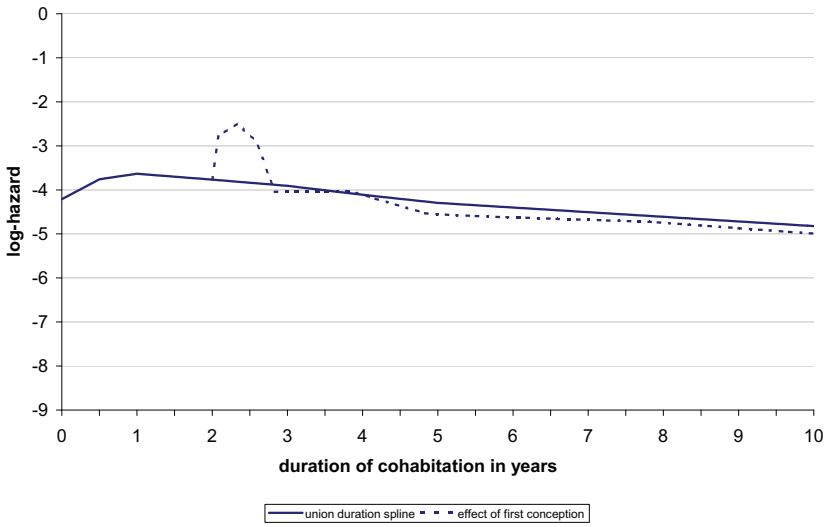
Even though marriage is privileged to cohabitation in France as well, the preferential treatment of marriage is less pronounced than in western Germany. Contrary to western Germany, the high share of non–marital births in France suggests that there is no strong interrelation between marriage and

parenthood anymore. To test this hypothesis, we analyze more in detail whether marriage formation and childbearing in France is not as closely interrelated as it is in western Germany. Our previous analyzes of the impact of pregnancy and childbearing on marriage formation behavior in France showed a less strong connection between both demographic processes than in western Germany, with a strong decrease in marriage risks after pregnancy and birth of the first child over calendar time and birth cohorts.

We apply the same method as we did in Section 7.3.4 for western Germany. By modelling simultaneously the transition to first conception after cohabitation and the transformation of cohabitation into marriage, we are able to control for the possible interrelation between common unobserved individual characteristics.

In order to investigate the effect of a first conception on marriage intensity more precisely, we again constructed a hypothetical example in which a non-married and childless woman who lives in a cohabitation gets pregnant after 2 years of union duration and compared this effect with women who did not get pregnant. The following graph displays the baseline hazard for a subsequent marriage after cohabitation and the effect of a first conception (Graph 7.58). The time-axis displays the duration of the cohabiting union in years. Becoming pregnant during cohabitation increases the risk of a subsequent marriage in the first year after conception. Highest marriage risks occur in the first six months of the pregnancy and decrease thereafter. Though this pattern is similar to that in western Germany, the extent in which a pregnancy influences the transition to a subsequent marriage is much lower in France than in western Germany. After birth, marriage intensity decreases and falls to levels equal or even under the baseline intensity. While marriage risks are higher for mothers in the first year after the birth of the child compared to childless women in western Germany, marriage intensities drop slightly below marriage risks of non–pregnant women already after the first two months after the birth of a child in France. Women who give birth to a child outside marriage remain unmarried as often as non–pregnant women in France.

Figure 7.58: Transition to subsequent marriage: effect of first conception and subsequent childbirth, French women

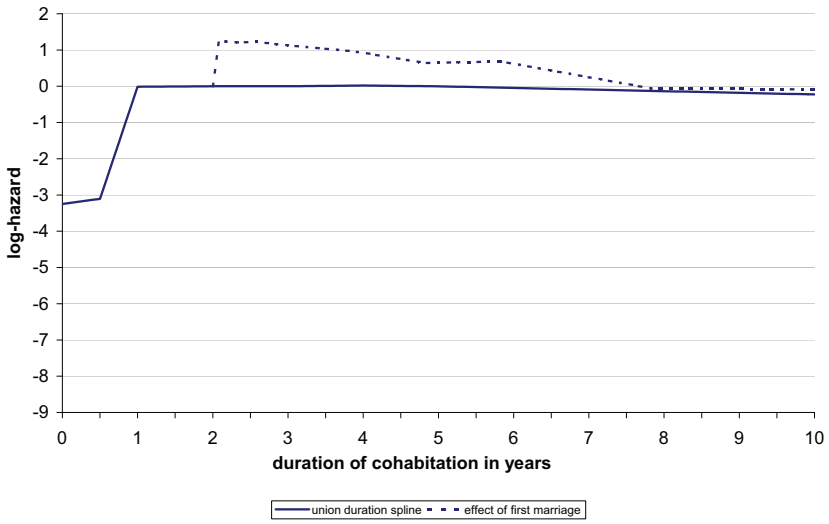


Source: Étude de l'histoire familiale 1999, own calculations

Notes: (1) Dependent variable: transition to subsequent marriage measured since start of cohabitation (2) Graph controlled for calendar year, current age, education, activity status

For the effect of a first marriage on the transition to a first conception we constructed a hypothetical example in which a non-pregnant and childless woman who lives in a cohabitation gets married after two years of union duration and compared this effect with women who do not marry (Graph 7.59). The time-axis displays again the duration of the cohabiting union in years. The effect is very similar to that in western Germany, though in France, marriage has a even bigger effect on conception than in western Germany. After marriage conception risks increase and remain above those of unmarried women for at least five years. Five years after marriage, conception risks of married women remain on the same level as the baseline hazard for cohabiting French women but they do not drop below that level.

Figure 7.59: Transition to first conception: effect of a first marriage for cohabiting women, French women

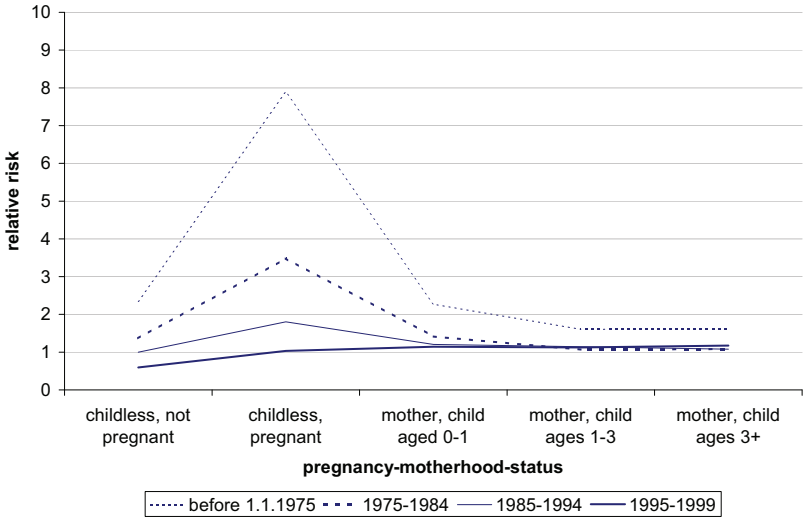


Source: Étude de l'histoire familiale 1999, own calculations

Notes: (1) Dependent variable: transition to first conception measured since start of cohabitation (2) Graph controlled for calendar year, current age, education, activity status

Again, we are interested in changes of this pattern over time. Figure 7.60 displays the transition to subsequent marriage and the effect of an interaction between pregnancy–motherhood–status and calendar year of union formation for French women. The x-Axis shows the pregnancy–motherhood–status: women who are childless and not pregnant, women who are childless and pregnant and mothers by the age of their child (under 1 year, 1-3 years old, older than three years). For most of the women marriage intensities increase to some extent with pregnancy and decrease thereafter. We clearly see a strong decline in marriage rates of pregnant women over time. French women who cohabited in the 1970s had an eight times higher risk of becoming married during pregnancy than women who cohabited between 1995 and 1999. For women with children one observes even a change in marriage pattern: marriage intensities slightly increase with the age of the first child, in particular for women who started cohabiting in the 1990s. However, this increase is not significantly different from the reference category (childless, not pregnant, 1985–1994).

Figure 7.60: Transition to subsequent marriage: interaction between pregnancy–motherhood–status and calendar year of union formation, French women

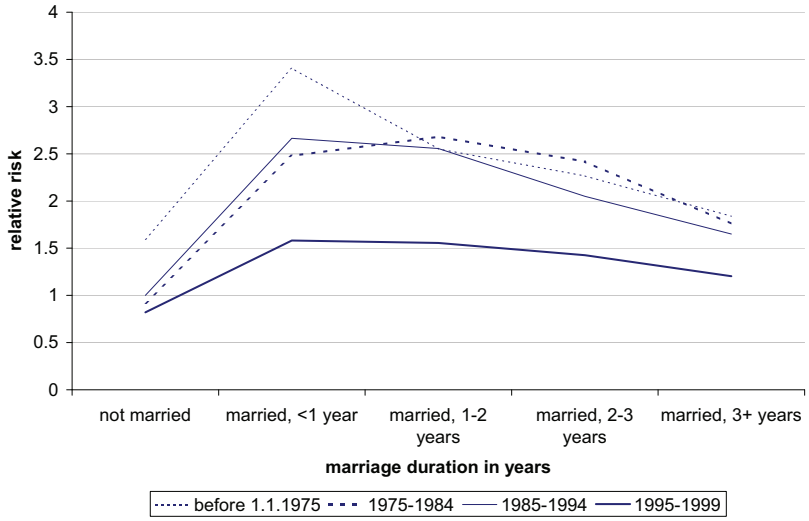


Source: Étude de l'histoire familiale 1999, own calculations

Notes: (1) Dependent variable: transition to subsequent marriage (2) Graph standardized for all variables shown in Table 11.5

The second graph displays the transition to a first conception and the effect of an interaction between marriage duration and calendar year of union formation (Figure 7.61). The x-Axis shows the marital status: women who are not married and married women by the duration of their marriage. First conception risks are highest during the first two years of marriage, regardless of the period in which the cohabiting union has been entered. Contrary to western Germany, where women's conception intensity increases by marriage duration over calendar time, in France the risk of becoming pregnant within marriage is lowest for women who entered consensual unions in the 1990s. Here we do not find evidence for a growing importance for childbearing within marriage but a clear drop in conception intensities within marriage over time.

Figure 7.61: Transition to first conception: interaction between marriage duration and calendar year of union formation, French women



Source: Étude de l'histoire familiale 1999, own calculations

Notes: (1) Dependent variable: transition to first conception (2) Graph standardized for all variables shown in Table 11.5

In the next step this interrelation process becomes further described by estimating a correlation coefficient between both unobserved heterogeneity factors. Also in France we assume that the processes of first birth and first marriage share some unmeasured factors that influence both of them, however due to the lower importance of marriage for childbearing we expect a less strong connection.

After analyzing both processes simultaneously we found a positive and significant correlation coefficient with a value of **0.83** (S.E.=0.013***) between unobserved characteristics. As in western Germany, there is no substantial change in the effects of covariates, thus our conclusion regarding the influence of women's education or activity status remain unchanged. The correlation in unmeasured factors suggests that also for French women conception and marriage are still highly interrelated: both events are part of the same process of family formation. However, the coefficient of correlation is lower than in western Germany; marriage and first birth appear to be less correlated. In this parallel process we did *not* control for the effect of marriage in the conception intensity or the effect of conception in the marriage intensity. When controlling for the conditional duration spline

for marriage (in the conception equation) or conception (in the marriage equation) we estimate a positive and significant correlation coefficient of **0.39** (S.E.=0.023***). Contrary to western Germany, where the coefficient of correlation became negligible and non–significant after including both splines, in France there are still unobserved characteristics left that might influence the transition to first conception and first marriage simultaneously (Table 7.24). The observed correlation in unmeasured factors is not only due to the interrelation between conception and marriage, as is the case in western Germany, but there are also other unobserved characteristics left. It is not possible to clarify the nature of the variables underlying the heterogeneity components since the unmeasured heterogeneity characteristics reflect the heterogeneous composition of each population with respect to values and norms (Baizán et al., 2002). We assume that these are attitudes and values regarding the sequence and timing of which family formation transitions which influence the transition to a first birth in a same way as they do for a first marriage.

Table 7.24: Unobserved heterogeneity: Standard deviation and correlation, French women

	not controlling for pregnancy/marriage	controlling for pregnancy/marriage
Conception (U_i)	0.87 ***	0.67 ***
Marriage (V_i)	1.59 ***	1.59 ***
Correlation	0.83 ***	0.39 ***

Étude de l'histoire familiale 1999, own calculations

Note: (1) controlled for calendar year, current age, current education, activity status (2) ***p $\leq$ 0.01; **0.01 $\leq$ p $\leq$ 0.05; *0.05 $\leq$ p $\leq$ 0.10

These results confirm on the one hand a still existing prevailing existence of an interrelation between marriage and childbearing also in France. However, the interrelationship is weaker in France and appears to become less interlinked over time compared to western Germany. Marriage becomes increasingly less important for founding a family, and the birth of a child becomes more independent from marriage compared to previous times.

7.5 First union: Summary of the results

In Chapter 7 we investigated the formation of a first union in a life–course perspective, by focussing on changes in first union formation over time as well as on the effects of the characteristics of women who choose to cohabit or marry directly. In the following, we summarize the most important findings and discuss these results in a comparative perspective.

7.5.1 Union formation over time

There has been a considerable change in union formation behavior in both countries. Our results show a remarkable decline in first marriage intensities at all ages and an overwhelming preference for cohabitation as a first step in the partnership career of western German and French women. Since the beginning of the 1980s, non–marital cohabitation has become the most common type of first union in each of the countries. However, the results also indicate that despite the strong increase in cohabiting unions in western Germany, cohabitation can only partially compensate the steep decrease in direct marriage rates that has started in the 1970s. In France, however, the decline in consensual unions fully compensates for decreasing marriage rates. Also from a cohort perspective, similarities but also differences can be observed. Both countries show a very similar pattern of first union formation for women born before 1954 with high rates of direct marriage and low rates of cohabitation. Already in the next–youngest cohort the increase in cohabitation rates is more pronounced in France than it is in western Germany. While direct marriage is almost negligible at the 10 per cent level for French women born between 1965 and 1974, still almost one–third of the western German women married directly in this birth cohort.

Regarding the development of marriage after cohabitation we observe a similar trend in both countries but varying by the speed and strength of progression. On the one hand subsequent marriage intensities decreased in western Germany since the mid–1970s. On the other hand, though marriage intensities have become smaller over time, marriage after cohabitation is not rejected in western Germany; subsequent marriage rates have remained stable at a moderate level since the mid–1980s. The reduction in marriage intensities after cohabitation has been faster and to a greater extend in France than in western Germany. Marriage rates dropped by 80% between the old-

est and the youngest cohort of French women. Also our descriptive results displayed a lower rate of conversion of cohabiting unions into marriage in France whereas in western Germany they are much quicker converted into marriage. There, also childbirth still primarily takes place within marriage. Non–marital births have increased also in western Germany, but to a much lower extent than in France and also a higher proportion of those births occurred to single mothers than to cohabiting mothers in western Germany. Next to the decrease in marriage rates, we observe a postponement of subsequent marriage formation: in both countries younger women (born after 1965) are becoming older at marriage formation with highest rates for the age group 25–29 compared to women born in the 1940s and 1950s.

Our first Hypothesis, *Hypothesis 1*, can therefore be confirmed: western German and French women who entered their first union during the 1960s and 1970s married more often directly than women who started living together in the 1980s and 1990s who more often choose non–marital cohabitation over direct marriage. In western Germany, cohabitation has developed from a marginal phenomenon to a stage in the marriage process whereas in France non–marital cohabitation has become an alternative to marriage though it has not replaced marriage.

7.5.2 The effect of women's education on first union formation

In both countries, women with a higher education have been the forerunners of cohabitation. Medium and low educated women seem to have adopted the union formation pattern of highly educated women one to two cohorts later. Women who are enrolled in education display lower rates of union formation in western Germany as well as in France, in particular regarding direct marriage rates. However, there are differences in the effect of educational enrollment on entry into cohabitation, the extent of cohabitation, the speed of diffusion of cohabiting unions and the timing of cohabitation within the life course. We also observe differences in the transition to direct marriage between western German and French women. In addition, we observed differences between different measurements of education.

Transition to a first union in western Germany

One of our main findings concerns the results we get when comparing the effect of first school graduation and current education for western German women. We estimated the effect of first school graduation on first union formation by analyzing cumulative incidence curves for competing events. In Germany first school graduation is generally a very good proxy for the overall educational outcome since it is closely connected to future educational outcomes and the occupational career. For western German women who graduated from school with the highest possible degree, the *Abitur*, we found a substantially higher risk for entry into cohabitation compared to less educated women. On the contrary, women with the least qualified degree, a *Hauptschul*–degree, are more likely to enter their first union as direct marriage. The proportional hazard models did not confirm these findings but showed a positive correlation between the level of education and entry into first union, independent of the type of union. Two reasons can be made responsible for this.

1. First, this is due to a *combination effect* of age and enrollment: educational enrollment is more important for the transition to cohabitation for highly educated women than the achieved level of education. We find high risks of entry into cohabitation for women who are enrolled in education during their late twenties. Women in education at age 25 and above consist almost exclusively of students who are generally longer in education than women with lower degrees. They have a higher risk of entering their first union as cohabitation and a very low risk of marrying directly than women who left the educational system. However, women who finished their education with a university degree have a more than twice as high risk to enter direct marriage at ages 30–34 compared to women with a vocational degree. This points to a *catch–up effect* for highly educated women in western Germany: women with a completed university degree who did not enter a first union during their studies more often choose to marry directly after they have finished their studies compared to medium or low educated women.

2. The second reason for the diverging contrast between the different

measurements of education can be ascribed to a *composition effect*. First, a high school degree not necessarily increases the risk of entering cohabitation, this is only the case if the individual underwent further education: women who graduated from school with an *Abitur* and have not further underwent education during their time at risk have extremely low union formation risks. Second, graduates with a low school degree who finish vocational training are more likely to enter direct marriage than all other women. Since this group of women was "hidden" within the category of medium educated respondents in the time–varying covariate of education we were not able to detect this effect before.

In sum, we conclude that western German women with the lowest educational degree (*Hauptschule*) and a subsequent completed vocational training display higher direct marriage rates than medium or high educated women. Highly educated women are very likely to cohabit during their studies. After they have finished studies and have not moved together with a partner, they marry more often directly than other educational groups. Therefore we cannot say per se that women with a higher education in western Germany tend to start their first partnership by cohabitation. Only women who have an *Abitur* and are enrolled in education in the last half of their 20s are more likely to start their first union by cohabitation than other women. Once women finished university studies they seem to favor direct marriage, given that they have not entered a cohabiting union before.

In addition, we do not find support for the hypothesis that highly educated women prefer marriage over cohabitation

Regarding the effect of educational attainment on western German women's first union formation, our second hypothesis, *Hypothesis 2*, can only partially be confirmed. We do not find a clear negative effect of educational attainment on marriage formation but even slightly higher marriage risks. This is due to the fact that highly educated women who have not been in a first union, quickly enter marriage after they finished university. Besides, highly educated women enter cohabitation more often than other women only if they are still in education: a high school degree leads to higher rates of cohabitation only if the woman studied further on.

This does not confirm the assumption that highly educated women are assumed to avoid marriage: more important is whether they are enrolled in education or not.

Regarding the effect of educational enrollment on first union formation in western Germany, our fourth hypothesis, *Hypothesis 4*, could be largely confirmed: on the one side women who are enrolled in education have lowest first union risks, the effect is very strong for direct marriage. This is in line with other previous findings that assume a delay of marriage after the end of education. On the other side, educational enrollment does not necessarily lower the risk of entering a first cohabitation for women who study between ages 25 and 34 and are at risk of entering a first union.

Transition to a first union in France

For France, the impact of education is more obvious than for western Germany. In general, French women with a university degree are more likely to enter cohabitation as first union than medium or low educated women, they have also significantly lower direct marriage rates. In addition, they have been the first women who have introduced cohabitation as the preferred type of first union. Low and medium educated women adopted this behavior one cohort later. Remarkable for France is the fact that there are only minor differences by level of education from birth cohort 1965–74 onwards. All French women, regardless of their educational level, have very similar first union patterns: more than 90% of the youngest cohort start their first partnership within a consensual union. In contrast to western Germany, where the age patterns differ among the respective levels of education, French women show similar age patterns at first union formation regardless of the level of education and the type of union with a peak at ages 20–24. Besides, we observe a change in the period effects of union formation after controlling for level of education and educational enrollment. In France, the shift in the proportion of the respective levels of education over time – the process of educational expansion in France has been more advanced and far–reaching than in western Germany – partly explains the

decrease in direct marriage intensities as well as the increase in the risk of entering cohabiting unions over calendar time.

Regarding the effect of educational attainment on first union formation in France, *Hypothesis 3* can largely be confirmed: Even though there is still a reduced risk of direct marriage for highly educated women, the differences between the levels of educations are not that strong. We find a clear positive effect of education on cohabitation in France which supports the hypothesis that higher educated women are the forerunners of cohabitation.

Regarding the effect of educational enrollment in France, our fourth hypothesis, *Hypothesis 4*, can be fully confirmed: women who are enrolled in education have lowest first union risks. As in western Germany, the effect is stronger for direct marriage. Contrary to western Germany, the risk of entering a first cohabiting union is higher for French women with a high level of education who are out of education compared to those who are still enrolled in education over all age groups.

Transition to marriage after cohabitation

Western German and French women who are already cohabiting and at risk of a subsequent marriage show very similar reduced marriage risks during educational enrollment. However, in western Germany there are no significant differences between the respective levels of education. Indeed, partner's education at the start of cohabitation is found to have a strong positive effect on marriage formation. Lowest marriage intensities can be observed for couples with only general schooling and women who graduated from university and have a low educated partner at the start of cohabitation. Having a highly educated partner increases marriage intensities for all western German women, regardless of their own education. The risk is highest for couples in which both partners hold a university degree. In France, a slightly higher risk to enter marriage after cohabitation can be observed for highly educated women while women with a low educational qualification display lower marriage rates compared to the reference category of middle

educated French women.

Regarding the effect of educational attainment on women's transition to marriage after cohabitation, we have to reject *Hypothesis 2* for western Germany. We do not find a negative effect of female educational attainment on marriage formation but a large positive impact of partner's level of education. It seems that entering marriage after cohabitation does not depend on women's education but on their partner's level of education. *Hypothesis 3* for France can also not be fully confirmed: We find again only little differences between educational levels in France, however women with a university degree even display slightly higher marriage risks. Regarding the effect of educational enrollment in both countries, *Hypothesis 4* can be fully confirmed: women who are enrolled in education have lowest marriage risks.

7.5.3 The effect of women's employment on first union formation

Entering cohabitation in western Germany seems to go along with a more unstable employment position. Being unemployed or inactive leads to higher cohabitation rates than being employed. Women who became unemployed or inactive before they entered a first partnership are a very selective group in western Germany who seem to prefer the less stable commitment of cohabitation over marriage. By contrast, entering marriage after cohabitation seems to go along with a more stable employment position: western German women who are currently full–time employed have the highest subsequent marriage risks compared to part–time or non–employed women.

Contrary to western Germany, entering cohabitation as first union does not imply employment instability for French women. Being employed even increases the risk of entry into cohabitation in France compared to not or never employed women. By contrast, French women who are currently not employed display slightly higher direct marriage rates than employed women. This effect can be continued for the transition to marriage after cohabitation: women who interrupted their employment show higher subsequent marriage intensities than currently employed women.

Regarding the effect of employment on union formation, *Hypothesis 5* can be confirmed for entry into first union in western Germany: western German women in unstable employment situations have higher rates of cohabitation than women who are full–time employed. In addition, we assumed that women in a stable employment situation prefer marriage over cohabitation. This applies for women who already live in cohabitation unions: western German women in more stable employment positions display even higher marriage risks than other women. Contrary to western Germany our hypothesis cannot be confirmed for France: women who are not or never employed display lower cohabitation rates whereas a stronger labor market attachment even seems to increase the risk of entering a first cohabiting union. Yet another contrast to western Germany appears when we look at the transition to marriage after cohabitation: women in a more stable employment position have lower subsequent marriage risks than other women. However, since the measurement of employment has been constructed quite differently[57], we cannot compare these results directly.

7.5.4 The effect of pregnancy and motherhood on first union formation

Our results confirm the prevailing existence of child-centered marriages in western Germany. Conception and marriage are highly interrelated. Over most of the observed time period, pregnant women who did not live in any union before their pregnancy usually entered marriage directly instead of cohabitation, especially after becoming aware of the pregnancy and before the child is born. Pregnant women try to legitimate their child before it is born whereas women who did not get married during their pregnancy or just after, remain unmarried. Since the child is already *illegitimate* the time to pressure to marry has disappeared (Blossfeld et al., 1999). A pregnancy also increases the intensity to entering into non–marital cohabitation, but

[57]Respondents could state whether they interrupted their job for a period of two years or more. However, only two such interruptions were recorded within the data set and only the year of interruption is available.

to an extremely lesser extent than into direct marriage and in comparison to France this risk is comparable low. The basic conclusion from the results of our analysis of the interrelationship between first conception/first birth and marriage after cohabitation is that women who are most prone to form a marital union (for reasons we partly do not measure) are also most likely to have a first birth. This finding suggest that both events are part of the same process of forming a family (Baizán et al., 2003). We also found out that the whole correlation is due to the interrelation between conception and marriage: there are no other unobserved characteristics left that might influence the transition to first conception and first marriage simultaneously. However, there are changes over time: while marriage remains and even becomes more important for founding a family in western Germany the birth of a child is not as strongly related to marriage anymore as it has been in previous times. On the one hand, shot–gun marriages experienced the most dramatic decrease. The decline in shot–gun marriages is part of the explanation for the drop in direct marriage rates in western Germany. Also for women who entered cohabitation in the late 1990s marriage does not follow the birth of a child automatically anymore. On the other hand, women who do get married after cohabitation seem to become a more selected group over time with a high family orientation: getting married still and even more includes the wish for children, a pattern which has already been detected for western Germany by Billari and Kohler (2000) or Le Goff (2002).

Though the impact of pregnancy and motherhood on the intensity of union formation is stronger for direct marriage than for cohabitation also in France, cohabitation intensities for French women who become pregnant are relatively high. They also show high cohabitation intensities after the birth of the child. Pregnant women and mothers have much higher cohabitation rates than childless women in France. While we observe a drop in marriage intensities over time primarily for non–pregnant cohabiting women without children in western Germany, a significant drop in marriage intensities over generations for cohabiting mothers has been detected in France. Contrary to western Germany, we do not find evidence for a growing importance of childbearing within marriage but a clear drop in conception intensities within marriage over time. Also for France we find a positive and

significant correlation coefficient between unobserved characteristics after analyzing first union formation and first birth simultaneously. However, the coefficient of correlation is lower than in western Germany; marriage and first birth appear to be less correlated. In addition, the observed correlation in unmeasured factors is not only due to the interrelation between conception and marriage, as is the case in western Germany, but there are also other unobserved characteristics left.

We conclude that also in France the interrelationship between marriage and childbirth is still existent. However, the interrelationship is weaker in France and appears to become less interlinked over time compared to western Germany. Marriage becomes increasingly less important for family foundation, and the birth of a child becomes less linked to marriage compared to previous times. *Hypotheses 6* can be confirmed: in both countries pregnant women enter marriage much more often than cohabitation and as soon as the child is born, marriage rates in both countries decrease again. In western Germany, pregnancy more often induces marriage than in France. There, the relaxation of the interrelationship between marriage and childbearing started earlier than in western Germany and to a larger extend.

7.5.5 Personal background characteristics and first union formation

For western Germany, we can also summarize some background variables which reflect in particular the respondent's upbringing and parental family characteristics. Religiosity is an important factor for the transition to first union formation. The more religious a woman is the higher is her risk of marrying directly or marrying after cohabitation and leads to a drop in cohabitation rates. This is in line with previous studies on the effect of religiosity on union formation for western German women. Besides, women who experienced a parental divorce until age 16 are more inclined to cohabit than to marry directly compared to women whose parents did not divorce during childhood. Parent's education influences union formation behavior not directly but via the education of their children. Before controlling for respondent's education, we observed a clear negative effect of the educa-

tional level of the parents on the transition to direct marriage. This effect disappeared after we controlled for women's educational level and enrollment. Parents of higher social classes provide their children with better opportunities to attain higher level of eduction and to stay in the educational system longer, than less qualified parents. This leads to lower rates in marriage since women in education display lower direct marriage rates than women who left the educational system. Thus, the social class background indirectly delays marriage, a finding which has already been detected by Blossfeld and Jaenichen (1992). While the parental background in the form of parents education is important for the transition to first union, it is not important anymore for the decision to become married after having already lived in a consensual union.

Chapter 8

Conclusion

8.1 Introduction

The major differences in demographic behavior, family policies, female labor force participation and institutional structures provided a strong incentive to study western Germany and France in a comparative perspective. Even though marriage, cohabitation and childbearing have undergone massive changes in western Germany and France, striking differences remain. The goal of this work was to understand first union formation patterns in western Germany and France by focussing on the impact of educational attainment and educational enrollment as well as on the analysis of how pregnancy, motherhood and marriage behavior are interrelated. Special attention has been paid to the development over time.

Political and institutional requirements in western Germany provide strong incentives to get married, particularly when one of the partners withdraws from full–time employment after childbirth. Then, advantages regarding taxation and insurances are biggest within marriage. Mothers with small children are dependent on either their husband's earning or welfare state support. This is due to the insufficient provision of day care for children younger than three years old, a small number of full–time care for older children, the half–day school system and a long duration of parental leave. Re-entry into the labor market becomes difficult and if women start working again they often do so on a part–time basis. Marriage is also an institution which protects caring mothers in case of separation: post–marital solidarity

has been enforced in western Germany for the time of our study. Alimony for one of the ex–spouses could stretch over many years. These structural conditions have historical reasons. In Germany, the principle of subsidiarity applies which asks families to arrange their affairs on their own, without state–run interference. This can be historically explained by the catholic social heritage that supported the continuity of the male breadwinner and ideologically enhanced the role model of the woman as mother and housewife. One result of this process has been the undersupply of childcare in western Germany and the related low labor force participation of mothers with small children. This also has an influence on attitudes of western German women who are mainly convinced that a child under three years of age mainly needs its mother to grow up emotionally stable and that any separation during that period is traumatic for the child (Fagnani, 2002).

In contrast to western Germany, child care facilities in France are strongly supported by the state - be it care for children aged below six or care for schoolchildren in the afternoon. Parents can more easily combine family and work, given that the extent and flexibility of child care are more comprehensive. The role of the employed women gets further strengthened by a parental–leave system with its pre–condition of previous employment and no payment of parental leave for first and second born children until 1994. Starting 1994, parental leave became introduced also for second–born children which led to decreasing labor force participation rates of mothers. Also in France we find incentives that encourage women to drop out of the labor market, however, these incentives are not as pronounced as in western Germany. Compared to western Germany, France does not emphasize the exclusive mother–child–relationship with its pronunciation on the private sphere but – due to historical and cultural reasons – the French state has a strong legitimation to intervene in family matters as well as in child care arrangements. Pro–natalist motivations, the French laicism, the republican concept of universalism and a tradition of voluntary benefits from employers are the main reasons why children and maternal employment are more supported than in western Germany where the aftermath of the Second World War resulted in a withdrawal of the state and pronounced the gender–division of labor within the family. Another important distinction from western Germany is the greater importance of cohabiting unions also

in the legal system, especially when children are involved. The legal recognition of cohabiting unions, low payments of maintenance after divorce and the equal treatment of marital and non–marital children long before western Germany made marriage more redundant in France. French women do not have to and also cannot rely on the institution of marriage as a means of financial and social protection.

These institutional and cultural backgrounds are the reason why western German and French women, though remarkable similar in many ways, still and maybe also in the future display different patterns of union formation behavior which makes comparisons between both countries so valuable.

The study was divided into three major parts. In the first part (Chapter 3) we discussed general theoretical approaches that try to explain changes in union formation behavior in industrialized countries. Four directions of argumentations have been broadly classified: the economic perspective, the delay-of-marriage-approach, the ideational change approach and the institutional variation hypothesis. In the second part (Chapter 4) we directly compared the contextual framework of both countries and discussed how external conditions might influence the pattern of marriage and cohabitation. We highlighted the historical roots and the current meaning of cohabitation and non-marital parenthood in Germany and France. We investigated the history of family policies to gain a better understanding of the contemporary system of social benefits, family allowances and public child care. The availability of child care, leave regulations, taxation, the regulatory framework but also different educational systems and labor market patterns shape conditions that influence decisions for or against a special type of union. Therefore, we extensively discussed these institutional variations and their potential influence on the individual decision regarding entry into marriage or cohabitation. In this study, the impact of family policies and institutional structures cannot be measured directly. However, differences in demographic behavior as well as in female labor force participation between both countries are influenced by the respective contextual framework of each country. Conclusions on how these context–differences impact behavior can be drawn from such a cross–country comparative analysis. Therefore, six hypotheses which are based on our knowledge on the contextual framework

have been developed. The third part of this work (Chapter 7) consisted of the empirical analysis of first union formation in western Germany and France. It was carried out with methods of event history analysis, using the 2000 German *Familiensurvey* and the 1999 French *Étude de l'histoire familiale*. We studied the effect of education, employment, pregnancy and childbearing, and some other individual characteristics on the transition to first marriage vs. non–marital cohabitation, as well as on the transformation of non–marital cohabitation into marriage. General summaries of these analyzes were provided in Section 7.5.

The purpose of the present chapter is to present key findings, link the empirical results with the theoretical discussion, and reflect on the research design and unresolved questions.

8.2 Substantial research findings

We found very similar developments over time in western Germany and France when analyzing women's first union formation patterns in these countries. In both countries the transition to adulthood has been delayed: The age at leaving school, at having a first job, at first union formation and at first birth has been strongly increasing. At the same time marriage rates have been decreasing and we observe a lower proportion of women ever married in younger cohorts. Still, the proportion of women who remain single until older ages is more or less constantly low over time. German and French women may start later but they do not forego co–residential partnerships. Though the majority of people in both countries cohabits now at the start of their first union instead of getting married directly, most of them still marry some time after cohabitation. In addition we observe growing numbers of non–marital births. Most of these children were born to cohabiting couples in both countries.

Despite these similarities, French women differ from western German women in their union formation behavior in many ways. The main differences we detected – always in comparison to western Germany – were the much higher share of non–marital births in France[58], a higher proportion

[58]The majority of these births are born in cohabiting unions in France whereas half of them are born to single mothers in western Germany.

of first unions that started as cohabitations and a longer stay in cohabiting unions before marriage. Cohabitation in France compensates for the steep increase in direct marriages over time. Regarding the determinants of union formation, a clear positive effect of education on the transition to a cohabiting union, a positive effect of employment on cohabitation, and a weaker interrelationship between first birth and first marriage which becomes less interlinked over time have been detected.

Within this work, some major findings can be highlighted which have not been identified before. First, we will present important aspects that were observable only for **western Germany**:

I.) *For western Germany, the proportional assumption of our event history model does not hold in the analysis of first union formation, since the age patterns differ between the educational levels.*

We observe a different pattern for women with a university or technical college degree compared to less educated western German women: the relative risk of marrying directly at ages 30-34 is twice as high compared to women in the same age group with a vocational degree. This points to a *catch–up effect* for highly educated women: women with a completed university degree who did not enter a first marriage during their studies more often choose to marry directly after they have finished their studies than medium educated women. Only by implementing an interaction between age and education, this underlying pattern of marriage behavior becomes truly visible.

II.) *The effect of education on first union formation is strongly dependent on the measurement of education.*

It seems that the impact of education on union formation in western Germany is very complex: if we want to understand this complexity we have to take care of the different properties of education. Measurements by means of cumulative incidence curves which used the first school degree of the respondent show a negative effect of education on direct marriage and a positive effect on cohabitation. However, a high school degree not necessarily increases the risk of entering cohabitation, this is only the case if the individual underwent further education: women who graduated from school

with an *Abitur* and have not further pursued education during their time at risk even display extremely low cohabitation risks. Second, graduates with a low school degree (*Hauptschule*) who finish vocational training are more likely to enter direct marriage than all other women. Since this group of women was "hidden" within the category of medium educated respondents in the time–varying covariate of education we were not able to detect this effect before. Therefore we have to consider the different measurements of education when analyzing first union formation in western Germany: only a combination of first school degree and further education (vocational training or university) gives us a clear picture of the impact of educational attainment and enrollment on the entry into non–marital cohabitation or direct marriage.

Education does not only mean the degree of human capital investment which increases or decreases the economic position of the woman and therewith impacts their opportunity costs of marriage. The educational outcome of a woman might also be influenced by a (self–) selection of individuals: women who are not able or willing to study further on and follow a long–term career track, exit the educational system earlier and are more likely to concentrate on their family life which still mostly includes marriage. Women who are more career–oriented remain longer in education and are aware of the difficulties of combining work and family life. Both characteristics have an impact on union formation: first, during educational enrollment more binding partnerships such as marriage are less likely. Second, marriage becomes delayed after a period of cohabitation in which men's earnings potential and willingness to share household and childrearing tasks are observed.

III.) *The education of a woman's partner at begin of cohabitation is very important for entering marriage after cohabitation in western Germany.*

Male education plays a major role for the entry into marriage after cohabitation in western Germany. Partner's education at the beginning of cohabitation[59] has a positive impact on marriage. Having a highly educated partner increases marriage intensities for all western German women,

[59]Since we only consider first unions, the partner at begin of the cohabiting union is also the future husband of the woman if she gets married. If the woman gets separated she becomes censored. Hence, partner's education influences marriage behavior of western German women positively for all couples who do not get separated before marriage.

regardless of their own education. The risk is highest for couples in which both partners hold a university degree. Men with only low education are not preferred as marriage partners. A weakening of their labor market position delays marriage formation and leads to a longer duration of cohabitation as already argued by Oppenheimer (1988, 1994, 1997). This is in line with a high number of findings that detected a positive impact of men's education on marriage formation (section 3.2.3) and indicates the importance of the partner characteristics when analyzing union formation patterns. It is also in line with empirical studies that found partner's education to be important for various family formation events, such as transition to another birth (e.g. Hoem et al., 2001; Köppen, 2006; Kreyenfeld, 2002b; Kreyenfeld and Zabel, 2005).

All of the above findings were explicitly observed for western Germany. We will now discuss in detail in what areas **western Germany and France** are similar and comment on the most important differences in first union formation behavior between both countries.

I.) *In western Germany and France, the economic independence hypothesis could not be confirmed.*

We did not find a negative effect of education but found that western German women who finished university education even enter marriage faster than other women. This is because of the structural impact of education: during their studies they prefer to cohabit rather than to marry. After their graduation, during their early 30s, they catch up with lower educated women which leads to an increase in marriage rates. This finding suggests that the economic reasoning is not useful for the interpretation of contemporary union formation behavior. Our findings are more in line with the critics of the economic independence theory who argue that women's longer enrollment in education and greater economic independence not necessarily lead to a decline in the proportion of women ever married but mainly to an increase in delayed marriage (e.g. Blossfeld and Huinink, 1989; Blossfeld and Jaenichen, 1992; Oppenheimer, 1988). The prolongation in education leads to an increase in less–binding relationships such as non–marital cohabitations since long–term commitments such as marriage with its legal and familial obligations are delayed. Increasing marriage rates after the end of

tertiary education might be interpreted as a pure catch–up effect. It might also point to the fact that highly educated women benefit later in life more from marriage than from cohabitation, especially with an equally educated partner. Studies that analyzed the transition to proprietary observed a positive relationship between education and home ownership as well as between marriage and home ownership (Wagner and Mulder, 2000).

Our results for France do not support the economic independence theory, either. First of all, the argument of the increasing opportunity costs of children which arise from foregone gains from own employment does not hold for France. French women and especially mothers are quite heavily involved in the labor market: full–time work is more frequent in France compared to western Germany and the share of working mothers, also those with pre–school children, is comparatively high. At the same time France displays one of the highest fertility rates in Europe and a low share of childlessness. We find it therefore hard to follow the economic argument which relates the growing labor market participation of women with decreasing fertility rates and assumes that the growth in female economic independence therefore led to a decline in the gain of marriage because the gender division of labor became less advantageous.

We do not observe a drop in fertility but children are increasingly born to unmarried parents, the proportion of non–marital births is very high in France: childbearing is not foregone but it becomes transferred from marriage into cohabiting unions. The fact that highly educated women more often choose to cohabit rather than marry directly compared to less educated women can therefore not be explained by economic arguments.

Besides, for younger cohorts, differences in union formation behavior between the educational groups more and more disappear - another fact which rather supports arguments of diffusion and ideational change than the perspective of the New Home Economics. French women who are already cohabiting even display a positive impact of education and employment on marriage formation while low educated and non–employed women rather remain in cohabitation than get married. This also contradicts the economic perspective and rather supports Oppenheimers' search–theoretic framework (Oppenheimer, 1988) which implies that women with greater economic independence are in a better bargaining position and incorporate premari-

tal cohabitation into search and bargaining processes because cohabitation provides better opportunities to observe men's earnings potential and willingness to share household and childrearing tasks. Highly educated women chose cohabitation as a first step in their couple's career but still get married after some time. This result is also consistent with previous findings (e.g. Bracher and Santow, 1998; Clarkberg, 1999; Duvander, 1999; Ono, 2003) which argue that cohabitation is a period in which (dualcareer) couples negotiate the division of labor to make marriage formation viable (Ono, 2003, p.284)[60].

II.) *Enrollment in education matters more for entry into cohabitation for western German women than for French women.*

Observed demographic developments, such as the decline in marriage rates, the growth in divorce rates, the growing importance of consensual unions, declining birth rates and increasing childlessness, are linked to ideational changes by the proponents of the Second Demographic Transition (e.g. Lesthaeghe and van de Kaa, 1986). Value changes from family–centered orientations towards more self–oriented pursuits are believed to be the driving force underlying the changes in family behavior that have been observed over the last decades. Representatives of the ideational approach argue that education can be taken as proxy for value changes (e.g. Beck, 1986; Lesthaeghe and Surkyn, 1998; Sobotka, 2004). Individuals with higher education are supposed to be more committed to individualism and gender equality and less supportive of authority (Weakliem, 2002). New lifestyles, e.g. extended periods of single living or cohabitation, are assumed to spread from higher educated to all other social groups through processes of diffusion.

Western German women who graduated from school with the highest possible degree have been the forerunners of cohabitation: they were the first to cohabit among all other educational groups. Lower educated women adopted this behavior two birth cohorts later.

However, a closer look at the effect of education on union formation reveals that the fact that women with the highest school degree more often choose to cohabit rather than to marry directly might not be related to

[60]This does not mean, however, that marriage does not contain processes of bargaining anymore. Also within marriages negotiation processes continue which lead to either a continuation or separation of marriage.

their career resources or some distinct value preferences but mainly to their longer enrollment in the educational system.

As argued above, we found increasing rates of cohabitation for women with a high school degree only if the woman studied further on and mainly during her educational enrollment in university. The fact that women who study during their late 20s and early 30s cohabit more often than all other women distinguishes western German women from their French counterparts. Though we find relatively high rates of cohabitation for women who are enrolled in education between ages 25 and 29, women with a tertiary degree in education always display highest cohabitation risks in all age groups compared to less educated French women. We conclude that the preference for living in consensual unions is not only a consequence of longer enrollment in education – connected with a possible (financial) dependence on the parental home or uncertain future prospects which lead to a preference of less binding relationships – but that highly educated women in addition might have values and preferences distinct from individuals with lower education. This is not necessarily due to effects of education itself but also due to (self–)selection in higher education (Sobotka, 2004). Since the process of educational expansion has been far more advanced in France than in western Germany, cohabitation spread faster to the majority of women and belongs nowadays to the standard life course of French women.

III.) *Pregnancy and motherhood are still stronger connected to marriage in western Germany than in France.*

In both countries, shot–gun marriages experienced a dramatic decrease over time and the birth of a child is not as strongly related to marriage anymore as it has been in previous times. Though the incidence of a pregnancy is not automatically followed by marriage anymore in western Germany, the group of married women seems to become more selective over time and can be characterized by a high family orientation: getting married still includes the wish for children. Women who are most prone to form a marital union (for reasons we partly can not measure) are also most likely to have a first birth. Both events are still entangled and part of the family formation process. We do not find evidence for a growing importance of childbearing within marriage for French women but a clear drop in conception intensities within marriage as well as a strong decline in marriage rates of pregnant

women over time. Pregnant women and mothers have much higher cohabitation rates than childless women in France. Another difference to western Germany is the significant drop in marriage intensities over generations for cohabiting mothers in France whereas we observe a drop in marriage intensities over time primarily for non–pregnant cohabiting women without children in western Germany.

As we have shown with this study, the impact of various explanatory variables on union formation is strongly dependent upon the specific context. Welfare regime types and sociopolitical conditions set different incentives for the choice of living arrangements but also long–term cultural continuities are still shaping the diversity of Western European societies. Though the present study could provide insights into the complex process of union formation behavior and its determinants, still questions have been left open and some have even been raised during this work.

8.3 Critical reflections and future research perspectives

This work tried to detect country–specific patterns of union formation in western Germany and France by analyzing them with the help of two very informative and rich data sets and interpreting the results by the means of our background knowledge on each countries cultural path dependency and their differences in their institutional contexts and (family) policies. Some of the results were in line with out theoretical concepts and hypotheses, others contradicted our assumptions. What we can finally say is that the process of modernization and individualization, indirectly characterized by the changing meaning and patterns of marriage and cohabitation, did not affect women in both countries in the same way. Though they show very similar patterns of union formation behavior, differences, in particular regarding the impact of childbearing on marriage formation but also regarding the effect of educational attainment and enrollment, remain. We conclude that this is because of the different institutional structures in both countries as well as the different cultural heritage.

However, the research design of this study has not been perfect. We had to deal with measurements problems as well as data challenges. One problem

for western Germany has been the broad specification of the time of entry into a cohabiting union. We had to create random numbers for date of entering cohabitation since only yearly information was given in the German data set. Due to this we only defined a union as a non–marital cohabitation if setting up a common household occurs at the latest in the year before the marriage. As a consequence, the number of pre-marital cohabitations is estimated quite conservatively in western Germany and some overlapping of family events, such as getting pregnant and entering a union, might have occurred. In addition, comparisons between countries always imply problems regarding the comparability of variables. Although most of the variables have been constructed in the same way, not all covariates have been defined and constructed equally in each of the data sets. For France we did not have complete educational histories. In order to construct a time-varying covariate for education, we used information on the highest degree level at interview and on the age at the end of education (school or university). If people studied further on after their first degree we were not able to include this level of education which might lead to an underestimation of educational attainment. Still, the low distribution of adult education in France reduces the risk of misclassification. Also employment has been defined differently in both countries. In western Germany a very detailed definition of employment has been available while for France only a very crude classification has been possible. We would have also been interested in studying how unemployment shapes the entry into marriage vs. cohabitation in France since our literature review suggested a delay of marriage due to unemployment. Due to this reasons it is difficult to compare the results of the impact of employment on entry into first union.

If one could choose an ideal research design for this specific topic, we would propose a study which contains data sets with exactly the same kind of variables. Up-to-date international comparable data sets are unfortunately rare. One option would be the analysis of the Gender and Generation Survey (GGS), a set of comparative surveys that are each representative of their respective populations and where the questionnaire in each country is intended to follow a standard format. However, also the GGS contains problems, such as a bias in partnership histories within the German GGS (Kreyenfeld et al., 2010). To study changing patterns of union formation, a valuable contribution would be the inclusion of values. In some parts of our

analysis, we treated education as a proxy for value changes. Still values are not only tightened to the educational attainment but are based on the whole history of the respondent: his or her socialization, the experiences during everyday life as well as on twists and turns in people's biographies. In an ideal situation we would accompany people over years and track their value changes combined with life events over time. To more closely study the impact of policies or external conditions, one could further enlarge the study by including macro–indicators such as country–specific employment rates or child–care rates. This would require multi–level–modeling. In addition, we have seen for western Germany that partner's education is very important for the transition to marriage after cohabitation. Therefore, partner's characteristics should be included in further studies. Since separation and divorce rates are high, not only the characteristics of the current partner but those of the corresponding partner in each period of life should be analyzed.

Next to measurement and data problems, there have also been questions left open. This study concentrated on the impact of various covariates on entry into a first union, marital or non–marital, and its further transition into a possible marriage. What we could only briefly touch on is the topic of stability of non–marital relationships and their character. Though we do know that in France marriage and childbearing become less interlinked over time, we do not know its further development after childbearing. It would be interesting to investigate whether cohabitation becomes a long–term union for parents with older children as well, or whether people have only postponed marriage to older ages. For Germany, the inclusion of Eastern Germany would be extremely meaningful to compare differences in union formation behavior in both parts of Germany. Future data sets, such as the PAIRFAM data for Germany, are able to investigate such questions more deeply.

Chapter 9

Appendix A

Table 9.1: Sample selection: western Germany

	Transition to first union	**Transition to subsequent marriage**
Original sample size	10,318	10,318
Sub–sample panel survey	2,002	2,002
Sub–sample adolescents	225	225
Men	3.653	3.653
Adopted or step children	30	30
Neue Laender (eastern Germany)	798	798
Missing information on birth year of respondent's child	15	15
Births before age 15	3	3
Foreigners/people born abroad	479	479
Entered first union before age 15	1	1
Never lived in non–marital cohabitation	—	1,726
Missing information on union histories	148	159
Started cohabiting in May 2000 or cohabited and separated in same year	—	38
Final sample size	2,964	1,189
Number of direct marriages	1,175 (48.8%)	—
Number of cohabitations	1,231 (51.2%)	—
Number of subsequent marriages	—	770 (64.8%)

Table 9.2: Sample selection: France

	Transition to first union	**Transition to subsequent marriage**
Original sample size	380,481	380,481
Not in EHF and in census	12,522	12,522
People living in collective homes	1,669	1,669
Men	139,308	139,308
Adopted or step children	1,081	1,081
Entered first union before age 15	727	727
Never lived in non–marital cohabitation	—	143,771
Missing information on birth year of respondent's child	907	904
Started cohabiting in 1999 (at interview)	—	472
Cohabited and separated in same month	—	190
Births before age 15	1,565	805
Foreigners/people born abroad	18,614	5,852
Born before 1944	70,288	9,131
Final sample size	133,800	64,049
Number of direct marriages	48,031 (42.6%)	—
Number of cohabitations	64,580 (57.4%)	—
Number of subsequent marriages	—	37,183 (58.1%)

Table 9.3: Distribution of respondents according to the various levels of the time fixed covariates for western Germany. Absolute and relative number of respondents

Variables	First union absolute	First union relative	Subsequent marriage absolute	Subsequent marriage relative
birth cohort				
1944-54	662	22.3%	155	13%
1955-64	945	31.9%	456	38.3%
1965-74	823	27.7%	459	38.5%
1975-82	537	18.1%	122	10.2%
education of mother				
missing	292	9.8%	115	9.7%
no/low degree	944	31.8%	348	29.2%
medium degree	1,639	55.2%	695	58.3%
high degree	92	3.1%	34	2.9%
education of father				
missing	377	12.7%	154	12.9%
no/low degree	262	8.8%	78	6.5%
medium degree	2,094	70.6%	869	72.9%
high degree	234	7.9%	91	7.6%
parental divorce				
no	2,792	94.1%	1.096	92%
yes	175	5.9%	96	8%
level of religiosity				
missing	13	0.4%	4	0.3%
religious	517	17.4%	128	10.7%
somewhat religious	1,660	56%	704	59.1%
not religious	777	26.2%	356	29.8%
education of partner				
missing			34	2.9%
in education			213	17.8%
no or low degree			183	15.4%
medium degree			649	54.5%
higher degree			100	8.4%
other degree			13	1.1%
Total	2,964	100%	1,189	100%

Table 9.4: Distribution of respondents according to the various levels of the time fixed covariates for France. Absolute and relative number of respondents

Variables	First union		Subsequent marriage	
	absolute	relative	absolute	relative
birth cohort				
1944-54	40,320	29.9%	9,857	15.3%
1955-64	39,641	29.4%	21,469	33.2%
1965-74	37,508	27.9%	27,888	43.1%
1975-82	17,213	12.8%	5,439	8.4%
Total	133,800	100%	64,049	100%

Table 9.5: Distribution of time at risk (in person-months) according to the various time-varying covariates for western Germany. Absolute and relative number of person-months

Variables	First union absolute	First union relative	Subsequent marriage absolute	Subsequent marriage relative
highest education achieved				
missing	12,854	4.5%	1,061	1.4%
in education	144,648	50,3%	9,228	21%
no or low degree	46,054	16%	8,340	19%
medium degree	72,343	25.1%	20,144	45.9%
higher degree	6,796	2.4%	3,246	7.4%
other degree	5,001	1.7%	1,876	4.3%
activity status				
missing	12,640	4.4%	765	1.7%
in education	1444,648	50.3%	9,228	21%
full–time employment	99,902	34.7%	25,520	58.1%
part–time employment	5,758	2%	2,297	5.2%
unemployment	784	0.3%	580	1.3%
maternal/parental leave	2,793	1%	2,310	5.3%
inactivity	15,614	5.4%	1,981	4.5%
never employed	5,557	1.9%	1,214	2.8%
pregnancy–motherhood–status				
childless, not pregnant	268,296	93.2%	33,526	76.4%
childless, pregnant <3months	3,207	1.1%	1,172	2.7%
childless, pregnant 3-6 months	2,766	1%	1,003	2.3%
childless, pregnant, 6-9 months	2,368	0.8%	841	1.9%
mother, child < 6 months	1,031	0.4%	750	1.7%
mother, child > 6 months	10,028	3.5%	6,603	15%
calendar time				
<1970	35,136	12.2%	586	1.3%
1970-1974	28,382	9.8%	1,381	3.1%
1975-1979	42,151	14.7%	3,447	7.9%
1980-1984	50,330	17.5%	7,118	16.2%
1985-1989	47,224	16.4%	10,112	23%
1990-1994	44,256	15.4%	10,263	23.4%
1995-2000	40,217	14%	10,988	25%
Total	287,696	100%	43,895	100%

Table 9.6: Distribution of time at risk (in person-months) according to the various time-varying covariates for France. Absolute and relative number of person-months

Variables	First union absolute	First union relative	Subsequent marriage absolute	Subsequent marriage relative
highest education achieved				
missing	142,924	1.1%	38,895	1.3%
no or low degree	2,665,017	20.7%	808,100	27%
medium degree	3,037,839	23.6%	1,259,896	42.1%
higher degree	1,060,596	8.2%	640,912	21.4%
in education	5,982,261	46.4%	245,003	8.2%
activity status				
in education	5,982,261	46.4%	245,003	8.2%
employed	5,682,763	44.1%	2,276,775	76.1%
not employed	956,185	7.4%	387,287	12.9%
never employed	267,428	2.1%	83,741	2.8%
pregnancy–motherhood–status				
childless, not pregnant	12,019,220	93.2%	1,684,444	56.3%
childless, pregnant <3months	62,613	0.5%	54,857	1.8%
childless, pregnant 3-6 months	42,221	0.3%	50,242	1.7%
childless, pregnant, 6-9 months	31,071	0.2%	46,972	1.6%
mother, child < 6 months	51,780	0.4%	90,995	3%
mother, child > 6 months	681,732	5.3%	1,065,296	35.6%
calendar time				
<1970	2,239,341	17.4%	33,310	1.1%
1970-1974	1,705,065	13.2%	89,999	3%
1975-1979	1,806,546	14%	202,218	6.8%
1980-1984	1,920,059	14.9%	396,507	13.2%
1985-1989	2,052,644	15.9%	639,055	21.4%
1990-1994	1,961,235	15.2%	894,443	29.9%
1995-1999	1,20,747	9.3%	737,274	24.6%
Total	12,888,637	100%	2,992,806	100%

Chapter 10

Appendix B

Table 10.1: Event history model for entry into first non–marital cohabitation, western German women

	Model 1	Model 2	Model 3	Model 4	Model 5
current age					
<20	0.27 ***	0.26 ***	0.33 ***	0.33 ***	0.34 ***
20-24 (ref)	1	1	1	1	1
25-29	1.03	1.04	0.96	0.96	0.93
30-34	0.83	0.83	0.76 **	0.76 **	0.73 **
35+	0.36 ***	0.35 ***	0.31 ***	0.31 ***	0.29 ***
birth cohort					
1944-1954 (ref)	1	1	1	1	1
1955-1964	1.86 ***	1.85 ***	1.89 ***	1.87 ***	1.88 ***
1965-1974	2.22 ***	2.17 ***	2.28 ***	2.28 ***	2.24 ***
1975-1982	2.30 ***	2.24 ***	2.44 ***	2.43 ***	2.13 ***
level of religiosity					
religious		0.55 ***	0.55 ***	0.55 ***	0.55 ***
somewhat religious		1.00	1.01	1.02	1.03
not religious (ref)		1	1	1	1
missing		0.92	0.93	0.96	0.94
parental divorce					
no (ref)		1	1	1	1
yes		1.60 ***	1.59 ***	1.59 ***	1.61 ***
education of mother					
no/low degree		1.14 *	1.11	1.11	1.10
medium degree (ref)		1	1	1	1
high degree		0.88	0.94	1.00	1.00
missing		1.11	1.10	1.09	1.08
education of father					
no/low degree		0.77 **	0.80 *	0.80 *	0.80 *
medium degree (ref)		1	1	1	1
high degree		0.72 ***	0.79 *	0.78 **	0.77 **
missing		1.05	1.10	1.10	1.10

Table 10.1: Event history model for entry into first non–marital cohabitation, western German women, continued

	Model 1	Model 2	Model 3	Model 4	Model 5
highest education achieved					
in education			0.59 ***	0.62 ***	0.63 ***
low			0.81 ***	0.76 ***	0.77 ***
medium (ref)			1	1	1
high			1.18	1.13	1.15
other			1.09	1.07	1.07
missing			0.45 ***	0.60 *	0.60 *
activity status					
full–time employed (ref)				1	1
part–time employed				1.22	1.20
unemployment				2.02 **	1.96 **
maternal/parental leave				1.37	0.97
inactivity				1.28 **	1.24 *
never employed				1.09	1.03
missing				0.73	0.73
preg.-motherhood-status					
childless, not preg. (ref)					1
childless, preg. $<$ 3 m.					1.42
childless, preg. 3-6 m.					1.04
childless, preg. 6-9 m.					3.35 ***
mother, child $<$ 6 m.					3.06 ***
mother, child $>$ 6 m.					1.13
Log likelihood	-2257.60	2212.9	2182.2	2176.7	2149.4
Prob>chi	0.000	0.000	0.000	0.082	0.000
Initial log likelihood	-2546.2				

Table 10.2: Event history model for entry into first direct marriage, western German women

	Model 1	Model 2	Model 3	Model 4	Model 5
current age					
<20	0.33 ***	0.33 ***	0.57 ***	0.58 ***	0.60 ***
20-24	1	1	1	1	1
25-29	0.80 **	0.81 **	0.72 ***	0.68 ***	0.62 ***
30-34	0.41 ***	0.42 ***	0.37 ***	0.35 ***	0.33 ***
35+	0.08 ***	0.08 ***	0.07 ***	0.07 ***	0.05 ***
birth cohort					
1944-1954	1	1	1	1	1
1955-1964	0.55 ***	0.60 ***	0.66 ***	0.66 ***	0.72 ***
1965-1974	0.33 ***	0.37 ***	0.43 ***	0.43 ***	0.41 ***
1975-1982	0.17 ***	0.21 ***	0.26 ***	0.25 ***	0.10 ***
level of religiosity					
religious		1.58 ***	1.61 ***	1.58 ***	1.68 ***
somewhat religious		1.31 ***	1.30 ***	1.30 ***	1.39 ***
not religious		1	1	1	1
missing		1.39	1.37	1.40	1.36
parental divorce					
no		1	1	1	1
yes		1.08	1.15	1.16	1.27
education of mother					
no/low degree		1.19 **	1.09	1.07	1.04
medium degree		1	1	1	1
high degree		0.64	0.78	0.76	0.67
missing		1.38 **	1.29 **	1.27 *	1.18
education of father					
no/low degree		1.08	1.08	1.06	1.05
medium degree		1	1	1	1
high degree		0.65 ***	0.91	0.91	0.92
missing		0.95	0.93	0.93	0.96

Table 10.2: Event history model for entry into first direct marriage, western German women, continued

	Model 1	Model 2	Model 3	Model 4	Model 5
highest education achieved					
in education			0.22 ***	0.22 ***	0.27 ***
low			0.77 ***	0.74 ***	0.76 ***
medium			1	1	1
high			0.91	0.98	1.12
other			0.92	0.94	0.96
missing			0.72 **	0.85	0.85
activity status					
full–time employed				1	1
part–time employed				0.93	0.93
unemployment				1.57	1.33
maternal/parental leave				2.34 ***	0.99
inactivity				0.98	0.94
never employed				1.50 **	1.22
missing				0.93	0.86
preg.-motherhood-status					
childless, not preg.					1
childless, preg. $<$ 3 m.					11.40 ***
childless, preg. 3-6 m.					22.27 ***
childless, preg. 6-9 m.					13.98 ***
mother, child $<$ 6 m.					6.03 ***
mother, child $>$ 6 m.					1.53 ***
Log likelihood	-2244.6	-2211.1	-2053.3	-2037.8	-1538.3
Prob>chi	0.000	0.000	0.000	0.000	0.000
Initial log likelihood	-2567.1				

Table 10.3: Event history model for entry into first union, controlled for calendar time, western German women

	cohabitation	direct marriage
current age		
<20	0,38 ***	0,51 ***
20-24	1	1
25-29	0,84 **	0,87
30-34	0,58 ***	0,61 **
35+	0,17 ***	0,17 ***
calendar time		
<1970	1	1
1970-1974	2,04 ***	0,83 *
1975-1979	2,74 ***	0,71 ***
1980-1984	3,31 ***	0,54 ***
1985-1989	3,74 ***	0,46 ***
1990-1994	3,98 ***	0,41 ***
1995-2000	3,99 ***	0,12 ***
level of religiousity		
missing	0,89	1,33
religious	0,56 ***	1,66 ***
somewhat religious	1,03	1,39 ***
not religious	1	1
parental divorce		
no	1	1
yes	1,61 ***	1,25
education of mother		
missing	1,08	1,19
no/low degree	1,11	1,03
medium degree	1	1
high degree	0,91	0,68
education of father		
missing	1,09	0,95
no/low degree	0,80 *	1,06
medium degree	1	1
high degree	0,80 *	0,94
highest education achieved		
missing	0,60 *	0,84
in education	0,62 ***	0,26 ***
low	0,77 ***	0,76 ***
medium	1	1
high	1,12	1,15
other	1,09	0,98
activity status		
missing	0,72	0,9
full–time employed	1	1
part–time employed	1,19	0,89
unemployment	1,89 **	1,51
maternal/parental leave	0,99	1
inactivity	1,25 *	0,89
never employed	0,99	1,2

Table 10.3: Event history model for entry into first union, controlled for calendar time, western German women, continued

	cohabitation	direct marriage
preg.-motherhood-status		
childless, not preg.	1	1
childless, preg. < 3 m.	1,42 *	11,77 ***
childless, preg. 3-6 m.	1,05	23,28 ***
childless, preg. 6-9 m.	3,35 ***	14,86 ***
mother, child < 6 m.	3,01 ***	6,21 ***
mother, child > 6 m.	1,10	1,54 **
Log likelihood	-2137,8	-1533,3
Prob>chi	0,000	0,000
Initial log likelihood	-2546,2	-2567,1

Table 10.4: Joint model of entry into cohabitation vs. direct marriage as competing risks, western German women

	cohabitation	direct marriage
calendar time		
<1970	0,14	1 (ref.)
1970-1974	0,28 ***	0,69 ***
1975-1979	0,37***	0,49 ***
1980-1984	0,45 ***	0,38 ***
1985-1989	0,49 ***	0,29 ***
1990-1994	0,53 ***	0,27 ***
1995-2000	0,57 ***	0,19 ***
Log likelihood	-4492,13	
Prob > chi2	0,000	

Table 10.5: Event history model for entry into subsequent marriage after cohabitation, western German women

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
duration of cohabitation						
0-6 months	0.27 ***	0.27 ***	0.27 ***	0.26 ***	0.26 ***	0.27 ***
6-12 months	0.91	0.90	0.90	0.89	0.88	0.87
1-2 years	1	1	1	1	1	1
2-3 years	0.79 **	0.80 **	0.79 **	0.81 *	0.81 *	0.79 **
3-5 years	0.74 ***	0.75 **	0.75 ***	0.78 **	0.77 **	0.78 **
5-10 years	0.57 ***	0.58 ***	0.59 ***	0.64 ***	0.64 ***	0.68 ***
10+ years	0.15 ***	0.15 ***	0.15 ***	0.17 ***	0.18 ***	0.19 ***
current age						
<20	0.81	0.82	0.97	1.01	1.02	0.97
20-24	1	1	1	1	1	1
25-29	1.31***	1.30 ***	1.26 ***	1.20 **	1.19 **	1.08
30-34	1.02	1.00	0.96	0.88	0.87	0.76 *
35+	0.51 ***	0.48 ***	0.45***	0.40 ***	0.39 ***	0.32 ***
birth cohort						
1944-1954	1	1	1	1	1	1
1955-1964	0.95	0.95	0.88	0.88	0.89	0.88
1965-1974	0.77 **	0.77 **	0.71 ***	0.71 ***	0.71 ***	0.61 ***
1975-1982	0.65 **	0.66 **	0.65 **	0.67 **	0.70 *	0.40 ***
level of religiosity						
religious		1.48***	1.44 ***	1.47 ***	1.49 ***	1.58 ***
somewhat religious		1.30 ***	1.27 ***	1.25 ***	1.27 ***	1.27 ***
not religious		1	1	1	1	1
missing		0.37	0.39	0.39	0.40	0.41
parental divorce						
no		1	1	1	1	1
yes		1.05	1.07	1.09	1.09	1.13

Table 10.5: Event history model for entry into subsequent marriage after cohabitation, western German women, continued

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
education of mother						
no/low degree		1.01	1.00	1.01	1.00	1.08
medium degree		1	1	1	1	1
high degree		0.94	1.03	0.96	0.98	0.98
missing		1.14	1.05	1.00	1.03	1.14
education of father						
no/low degree		1.04	1.01	0.99	0.98	0.95
medium degree		1	1	1	1	1
high degree		0.90	1.08	1.04	1.06	1.02
missing		0.84	0.84	0.88	0.86	0.88
highest education achieved						
in education			0.44 ***	0.45 ***	0.45 ***	0.47 ***
low			0.85	0.88	0.89	0.89
medium			1	1	1	1
high			0.75 *	0.77 *	0.81	0.84
other			0.85	0.86	0.87	0.90
missing			0.87	0.97	0.79	0.86
Partners education at start of union						
in education				0.85	0.86	0.91
low				0.65***	0.65***	0.66 ***
medium				1	1	1
high				1.24	1.24	1.31 **
other				1.69	1.78	2.21
missing				0.63	0.62	0.59

Table 10.5: Event history model for entry into subsequent marriage after cohabitation, western German women, continued

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
activity status						
full–time employed					1	1
part–time employed					0.69 *	0.64 **
unemployment					1.05	0.81
maternal/parental leave					1.40 **	0.95
inactivity					0.97	0.93
never employed					0.99	0.89
missing					1.44	1.43
preg.-motherhood-status						
childless, not preg.						1
childless, preg. $<$ 3 m.						3.96 ***
childless, preg. 3-6 m.						6.03 ***
childless, preg. 6-9 m.						5.34 ***
mother, child $<$ 6 m.						2.83 ***
mother, child $>$ 6 m.						1.33 **
Log likelihood	-1392.5	-1383.22	-1357.4	-1345	-1339.2	-1211.3
Prob>chi	0.000	0.046	0.000	0.000	0.074	0.000
Initial log likelihood	-1485.7					

Table 10.6: Event history model for entry into subsequent marriage after cohabitation, controlled for calendar time, western German women

	Final model
duration of cohabitation	
0-6 months	0,27 ***
6-12 months	0,85
1-2 years	1
2-3 years	0,8 **
3-5 years	0,82 *
5-10 years	0,71 **
10+ years	0,21 ***
current age	
<20	0,87
20-24	1
25-29	1,25 **
30-34	1,04
35+	0,52 ***
calendar time	
<1970	1
1970-1974	0,98
1975-1979	0,68
1980-1984	0,53 ***
1985-1989	0,47 ***
1990-1994	0,47 ***
1995-2000	0,31 ***
level of religiousity	
missing	0,44
religious	1,5 ***
somewhat religious	1,25 **
not religious	1
parental divorce	
no	1
yes	1,15
education of mother	
missing	1,15
no/low degree	1,05
medium degree	1
high degree	1,05
education of father	
missing	0,84
no/low degree	0,96
medium degree	1
high degree	0,99
highest education achieved	
missing	0,87
in education	0,46 ***
low	0,89
medium	1
high	0,86
other	0,93

Table 10.6: Event history model for entry into subsequent marriage after cohabitation, controlled for calendar time, western German women, continued

	Final model
partners education at start of union	
missing	0,57 *
in education	0,92
no degree or secondary degree	0,68 ***
vocational degree	1
university/technical college degree	1,29 *
other degree	2,29 **
activity status	
missing	1,34
full–time employed	1
part–time employed	0,64 **
unemployment	0,83
maternal/parental leave	0,94
inactivity	0,88
never employed	0,93
preg.-motherhood-status	
childless, not preg.	1
childless, preg. $<$ 3 m.	4,02 ***
childless, preg. 3-6 m.	6,14 ***
childless, preg. 6-9 m.	5,4 ***
mother, child $<$ 6 m.	2,8 ***
mother, child $>$ 6 m.	1,3 **
Log likelihood	-1201,08
Prob>chi	0,000
Initial log likelihood	-1485,7

Chapter 11

Appendix C

Table 11.1: Event history model for entry into first non–marital cohabitation, French women

	Model 1	Model 2	Model 3	Model 4
current age				
<20	0.25 ***	0.41 ***	0.41 ***	0.42 ***
20-24	1	1	1	1
25-29	1.01	0.82 ***	0.82 ***	0.82 ***
30-34	0.67 ***	0.56 ***	0.56 ***	0.56 ***
35+	0.39 ***	0.34 ***	0.34 ***	0.35 ***
birth cohort				
1944-1954	1	1	1	1
1955-1964	2.26 ***	2.39 ***	2.39 ***	2.43 ***
1965-1974	3.14 ***	3.78 ***	3.81 ***	3.90 ***
1975-1980	2.93 ***	4.32 ***	4.45 ***	4.57 ***
highest education achieved				
missing		0.73 ***	0.75 ***	0.70 ***
low		0.93 ***	0.95 ***	0.91 ***
medium		1	1	1
high		1.14 ***	1.14 ***	1.18 ***
in education		0.29 ***	0.29 ***	0.30 ***
activity status				
employed			1	1
not employed			1.00	0.97 **
never employed			0.71 ***	0.68 ***
pregnancy-motherhood-status				
childless, not pregnant				1
childless, pregnant < 3 m.				4.50 ***
childless, pregnant 3-6 m.				3.93 ***
childless, pregnant 6-9 m.				4.28 ***
mother, child < 6 m.				2.10 ***
mother, child > 6 m.				1.17 ***
Log likelihood	-104646.4	-97900.8	-97808.4	-95461.2
Prob>chi	0.000	0.000	0.000	0.000
Initial log likelihood	-124230.2			

Table 11.2: Event history model for entry into direct marriage, French women

	Model 1	Model 2	Model 3	Model 4
current age				
<20	0.27 ***	0.45 ***	0.44 ***	0.46 ***
20-24	1	1	1	1
25-29	0.48 ***	0.42 ***	0.43 ***	0.47 ***
30-34	0.17 ***	0.15 ***	0.15 ***	0.18 ***
35+	0.05 ***	0.05 ***	0.04 ***	0.06 ***
birth cohort				
1944-1954	1	1	1	1
1955-1964	0.56 ***	0.63 ***	0.63 ***	0.66 ***
1965-1974	0.13 ***	0.18 ***	0.18 ***	0.19 ***
1975-1980	0.03 ***	0.06 ***	0.06 ***	0.06 ***
highest education achieved				
missing		0.73 ***	0.72 ***	0.63 ***
low		0.98	0.98 *	0.91 ***
medium		1	1	1
high		0.83 ***	0.83 ***	0.89 ***
in education		0.12 ***	0.12 ***	0.14 ***
activity status				
employed			1	1
not employed			1.15 ***	1.09 ***
never employed			1.05 *	1.00
pregnancy-motherhood-status				
childless, not pregnant				1
childless, pregnant < 3 m.				11.84 ***
childless, pregnant 3-6 m.				9.87 ***
childless, pregnant 6-9 m.				5.76 ***
mother, child < 6 m.				2.13 ***
mother, child > 6 m.				0.85 ***
Log likelihood	-86631.2	-76964.3	-76920.9	-60890.4
Prob>chi	0.000	0.000	0.000	0.000
Initial log likelihood	-110837.9			

Table 11.3: Event history model for entry into first union, controlled for calendar time, French women

	cohabitation	direct marriage
current age		
<20	0,53 ***	0,4 ***
20-24	1	1
25-29	0,65 ***	0,63 ***
30-34	0,33 ***	0,37 ***
35+	0,12 ***	0,25 ***
calendar time		
<1970	1	1
1970-1974	2,01 ***	1,09 ***
1975-1979	3,63 ***	0,9 ***
1980-1984	5,02 ***	0,52 ***
1985-1989	6,32 ***	0,27 ***
1990-1994	7,62 ***	0,16 ***
1995-1999	8,89 ***	0,13 ***
highest education achieved		
missing	0,72 ***	0,62 ***
low	0,94 ***	0,9 ***
medium	1	1
high	1,16 ***	0,92 ***
in education	0,29 ***	0,13 ***
activity status		
employed	1	1
not employed	0,97 **	1,07 ***
never employed	0,65 ***	0,99
pregnancy-motherhood-status		
childless, not pregnant	1	1
childless, pregnant < 3 months	4,57 ***	11,64 ***
childless, pregnant 3-6 months	3,93 ***	19,68 ***
childless, pregnant 6-9 months	4,25 ***	5,74 ***
mother, child < 6 months	2,08 ***	2,13 ***
mother, child > 6 months	1,1 ***	0,85 ***
Log likelihood	-93912,4	-60229,2
Prob>chi	0,000	0,000
Initial log likelihood	-124230,2	-110837,9

Table 11.4: Joint model of entry into cohabitation vs. direct marriage as competing risks, French women

	cohabitation	direct marriage
calendar time		
<1970	0,172693 ***	1 (ref.)
1970-1974	0,313753 ***	0,97882
1975-1979	0,532907 ***	0,715188 ***
1980-1984	0,699331 ***	0,393934 ***
1985-1989	0,816922 ***	0,184848 ***
1990-1994	0,892529 ***	0,097861 ***
1995-2000	0,910529 ***	0,08269 ***
Log likelihood	-190460	
Prob > chi2	0,000	

Table 11.5: Event history model for entry into subsequent marriage after cohabitation, French women

	Model 1	Model 2	Model 3	Model 4
duration of cohabitation				
0-6 months	1.01	1.02	1.02	1.00
6-12 months	1.16 ***	1.16 ***	1.16 ***	1.14 ***
1-2 years	1	1	1	1
2-3 years	0.86 ***	0.86 ***	0.85 ***	0.88 ***
3-5 years	0.64 ***	0.63 ***	0.63 ***	0.67 ***
5-10 years	0.38 ***	0.39 ***	0.38 ***	0.43 ***
10+ years	0.21 ***	0.21 ***	0.21 ***	0.24 ***
current age				
<20	0.93	1.02	1.01	0.96 **
20-24	1	1	1	1
25-29	0.93 ***	0.87 ***	0.87 ***	0.87 ***
30-34	0.63 ***	0.58 ***	0.58 ***	0.60 ***
35+	0.46 ***	0.43 ***	0.43 ***	0.46 ***
birth cohort				
1944-1954	1	1	1	1
1955-1964	0.70 ***	0.69 ***	0.68 ***	0.69 ***
1965-1974	0.46 ***	0.46 ***	0.46 ***	0.46 ***
1975-1980	0.19 ***	0.21 ***	0.21 ***	0.21 ***
highest education achieved				
missing		0.83 ***	0.82 ***	0.84 ***
in education		0.44 ***	0.45 ***	0.48 ***
low		0.88 ***	0.87 ***	0.87 ***
medium		1	1	1
high		1.07 ***	1.08 ***	1.09 ***
activity status				
employed			1	1
not employed			1.14 ***	1.15 ***
never employed			1.01	1.02
preg.-motherhood-status				
childless, not preg.				1
childless, preg. < 3 m.				2.86 ***
childless, preg. 3-6 m.				3.52 ***
childless, preg. 6-9 m.				1.34 ***
mother, child < 6 m.				1.08 ***
mother, child > 6 m.				0.87 ***
Log likelihood	-86214.8	-85476.4	-85441.2	-83156.7
Prob>chi	0.000	0.000	0.000	0.000
Initial log likelihood	-92766.9			

Table 11.6: Event history model for entry into subsequent marriage after cohabitation, controlled for calendar time, French women

	Final model
duration of cohabitation	
0-6 months	0,98
6-12 months	1,11 ***
1-2 years	1
2-3 years	0,89
3-5 years	0,69 ***
5-10 years	0,44***
10+ years	0,26 ***
current age	
<20	0,82***
20-24	1
25-29	1,03 **
30-34	0,87 ***
35+	0,86 ***
calendar time	
<1970	1
1970-1974	0,81 ***
1975-1979	0,64 ***
1980-1984	0,45 ***
1985-1989	0,34 ***
1990-1994	0,28 ***
1995-2000	0,30 ***
highest education achieved	
missing	0,81 ***
in education	0,47 ***
low	0,85 ***
medium	1
high	1,09 ***
activity status	
employed	1
not employed	1,14 ***
never employed	0,97
preg.-motherhood-status	
childless, not preg.	1
childless, preg. < 3 m.	2,83 ***
childless, preg. 3-6 m.	3,48 ***
childless, preg. 6-9 m.	1,33 ***
mother, child < 6 m.	1,07 **
mother, child > 6 m.	0,86 ***
Log likelihood	-82835,1
Prob>chi	0,000
Initial log likelihood	-92766,9

Bibliography

Abrams, L. (1993). Concubinage, Cohabitation and the Law: Class and Gender Relations in Nineteenth–Century Germany. *Gender & History 5*(1), 81–100.

Anderson, G. and D. Philipov (2002). Life–table representations of family dynamics in Sweden, Hungary, and 14 other FFS countries: A project of descriptions of demographic behavior. *Demographic Research 7*(4), 67–144.

Anttonen, A. and J. Sipilä (1996). European Social Care Services: Is it Possible to Identify Models? *Journal of European Social Policies 6*(2), 87–100.

Baclet, A., F. Dell, and K. Wrohlich (2005). Income taxation and household size: would French family splitting make German families better off? Discussion Paper 1894, Institute for the Study of Labor, Bonn.

Baizán, P., A. Aassve, and F. B. Billarie (2002). Institutional arrangements and life course outcomes: The interrelations between cohabitation, marriage and first birth in Germany and Sweden. MPIDR Working Paper WP 2002–026, Rostock.

Baizán, P., A. Aassve, and F. B. Billarie (2003). Cohabitation, Marriage, and First Birth: The Interrelationship of Family Formation Events in Spain. *European Journal of Population 19*, 147–169.

Beck, U. (1986). *Risikogesellschaft. Auf dem Weg in eine andere Moderne*. Frankfurt am Main: Suhrkamp Verlag.

Beck, U. (1992). *Risk Society. Towards a new modernity*. London, Thousand Oaks, New Dehli: Sage Publications.

Beck, U. and E. Beck-Gernsheim (1990). *Das ganz normale Chaos der Liebe*. Frankfurt am Main: Suhrkamp.

Becker, A. (2000). *Mutterschaft im Wohlfahrtsstaat. Familienbezogene Sozialpolitik und die Erwerbsintegration von Frauen in Deutschland und Frankreich*. Berlin: Wissenschaftlicher Verlag Berlin.

Becker, G. S. (1960). An economic analysis of fertility. *Demographic and economic change in developed countries*, 209–231.

Becker, G. S. (1973). A Theory of Marriage: Part I. *Journal of Political Economy 81*(4), 813–846.

Becker, G. S. (1981). *A Treatise on the Family*. Cambridge, Massachusetts: Harvard University Press.

Becker, G. S. (1993). *A Treatise on the Family. Enlarged Edition*. Cambridge, Massachusetts: Harvard University Press.

Beckmann, P. (2003). EU–Beschäftigungsquote: Auch richtige Zahlen können in die Irre führen. IAB Kurzbericht 11, Institut für Arbeitsmarkt– und Berufsforschung der Bundesanstalt für Arbeit.

Beckmann, P. and G. Engelbrech (2001). Die schwierige Balance: Frauen zwischen Beruf und Familie. Neue Zahlen zur Rückkehr von Frauen in ihren Beruf nach dem Erziehungsurlaub. *Personalführung 34*(6), 118–129.

Bell, L., G. Burtless, J. Gornick, and T. M. Smeeding (2007). Failure to launch: cross-national trends in the transition to economic independence. In S. Danziger and C. Rouse (Eds.), *The price of independence: the economics of early adulthood*, New York, pp. 27–55. Russell Sage Foundation.

Bernhard, E. (2004). Is the Second Demographic Transition a useful concept for demography? *Vienna Yearbook of Population Research*, 25–28.

Berrington, A. and I. Diamond (2000). Marriage or cohabitation: a competing risks analysis of first–partnership formation among the 1958 British cohort. *Journal of the Royal Statistical Society Series A*(163, Part 2), 127–151.

Billari, F. (2005). Life course analysis: Two (complementary) cultures? Some reflections with examples from the analysis of the transition to adulthood. In r. Levy, P. Ghisletta, J.-M. Le Goff, D. Spini, and E. Widmer (Eds.), *Towards an interdisciplinary perspective on the life course*, Amsterdam, pp. 261–282. Elsevier.

Billari, F. C. and H.-P. Kohler (2000). The impact of union formation dynamics on first births in West Germany and Italy: are there signs of convergence? MPIDR Working Paper WP 2000–008, Max Planck Institute for Demographic Research, Rostock.

Billari, F. C. and C. Wilson (2001). Convergence towards diversity? Cohort dynamics in the transition to adulthood in contemporary Western Europe. MPIDR Working Paper WP 2001-039, Max Planck Institute for Demographic Research, Rostock: `http://www.demogr.mpg.de/Papers/Working/WP-2001-039.pdf`.

Blanpain, N. (2006a). Garder et faire garder son enfant. *Donées sociales: La société française - Édition 2006*, 77–83.

Blanpain, N. (2006b). Scolarisation et modes de garde des enfants âgés de 2 à 6 ans. Études et Résultats 497, DREES.

Blossfeld, H.-P. and J. Huinink (1989). Die Verbesserung der Bildungs– und Berufschancen von Frauen und ihr Einfluss auf den Prozess der Familienbildung. *Zeitschrift für Bevölkerungswissenschaft 15*(4), 383–404.

Blossfeld, H.-P. and J. Huinink (1991). Human Capital Investment or Norms of Role Transition? How Women's Schooling and Career Affect the Process of Family Formation. *American Journal of Sociology 97*(1), 143–168.

Blossfeld, H.-P. and U. Jaenichen (1992). Educational Expansion and Changes in Women's Entry into Marriage and Motherhood in the Federal Republic of Germany. *Journal of Marriage and the Family 54*(2), 302–315.

Blossfeld, H.-P., E. Klijzing, K. Pohl, and G. Rohwer (1999). Why Do Cohabiting Couples Marry? An Example of a Causal Event History Approach to Interdependent Systems. *Quality & Quantity 33*, 229–242.

Blossfeld, H.-P. and G. Rohwer (1995). *Techniques of event history modeling. New approaches to causal analysis*. Mahwah, New Jersey: Lawrence Erlbaum Associates.

Blossfeld, H.-P. and A. Timm (Eds.) (2003). *Who Marries Whom? Educational Systems as Marriage Markets in Modern Societies*. Dordrecht et al.: Kluwer.

Bothfeld, S., U. Klammer, C. Klenner, S. Leiber, A. Thiel, and A. Ziegler (2005). *WSI FrauenDatenReport 2005*. Düsseldorf: Hans-Böckler-Stiftung.

Bozon, M. (2003). At what age do women and men have their first sexual intercourse? World comparisons and recent trends. *Population & Sociétés* (391), 1–4.

Bracher, M. and G. Santow (1998). Economic independence and union formation in Sweden. *Population Studies 52*, 275–294.

Bradley, D. (2001). Regulation of Unmarried Cohabitation in West–European Jurisdiction – Determinants of Legal Policy. *International Journal of Law, Policy and the Family 15*(1), 22–50.

Brauns, H., S. Steinmann, A. Kieffer, and C. Marry (1997). Does Education Matter? France and Germany in Comparative Perspective. Arbeitspapiere Arbeitsbereich I/20, Mannheimer Zentrum für Europäische Sozialforschung, Mannheim.

Brauns, H., S. Steinmann, A. Kieffer, and C. Marry (1999). Does Education Matter? France and Germany in Comparative Perspective. *European Sociological Review 15*(1), 61–89.

Breen, R. and M. Buchmann (2002). Institutional Variation and the Position of Young People: A Comparative Perspective. *The Annals of the American Academy 580*, 288–305.

Brien, M. J., L. A. Lillard, and L. J. Waite (1999). Interrelated Family–Building Behaviors: Cohabitation, Marriage, and Nonmarital Conception. *Demography 36*(4), 535–551.

Brüderl, J. (2004). Die Pluralisierung partnerschaftlicher Lebensformen in Westdeutschland und Europa. *Aus Politik und Zeitgeschichte 19*, 3–10.

Brüderl, J. and A. Diekmann (1994). Bildung, Geburtskohorte und Heiratsalter. Eine vergleichende Untersuchung des Heiratsverhaltens in Westdeutschland, Ostdeutschland und den Vereinigten Staaten. *Zeitschrift für Soziologie 23*(1), 56–73.

Bumpass, L. L., J. A. Sweet, and A. Cherlin (1991). The Role of Cohabitation in Declining Rates of Marriage. *Journal of Marriage and the Family 53*, 913–927.

Bundesministerium für Familie, Senioren, Frauen und Jugend (2007). *Dokumentation der Tagung: Eigenverantwortung, private und öffentliche Solidarität – Rollenleitbilder im Familien- und Sozialrecht im europäischen Vergleich*. Baden–Baden: Nomos Verlag.

Bundesregierung (1995). *Familien und Familienpolitik in Deutschland – Zukunft des Humanvermögens.* Bonn: Bundesministerium für Familie, Senioren, Frauen und Jugend.

Bundesregierung (2002). *Erziehungsgeld, Elternzeit. Das neue Bundeserziehungsgeldgesetz für Eltern mit Kindern ab dem Geburtsjahrgang 2001.* Berlin: Bundesministerium für Familie, Senioren, Frauen und Jugend.

Bundesregierung (2006, accessed on 30.03.2007). Parenting benefit starts January 1. `http://www.bundesregierung.de/nn_6516/Content/EN/Artikel/2006/12/2006-12-27-elterngeld__en.html`.

Caisse d'Allocations Familiales (2008, 28.03.2008). `www.caf.fr`.

Carmichael, G. A. (1995). Consensual Partnering in the More Developed Countries. *Journal of the Australien Population Association 12*(1), 51–86.

Cassan, F., F. Heran, and L. Toulemon (2000). Study of family history. *Courrier des statistiques – English series* (6), 7–19.

Cherlin, A. J. (2000). Toward a New Home Socioeconomics of Union Formation. In L. J. Waite, C. Bachrach, M. Hindin, E. Thomson, and A. Thornton (Eds.), *The Ties That Bind. Perspectives on Marriage and Cohabitation*, New York, pp. 126–144. Aldine de Gruyter.

Choné, P., D. Blanc, and I. Robert-Bobée (2003). Female labor supply and child care in france. CESifo working paper No. 1059, CESigo GmbH, `http://ideas.repec.org/p/ces/ceswps/_1059.html`.

Clarkberg, M. (1999). The Price of Partnering: The Role of Economic Well-Being in Young Adults' First Union Experiences. *Social Forces 77*(3), 945–968.

Cliquet, R. L. (1991). *The second demographic transition: fact or fiction?* Strasbourg: Council of Europe.

Council of Europe (2001). *Recent demographic developments in Europe*. Strasbourg: Council of Europe.

Council of Europe (2003). *Recent demographic developments in Europe*. Strasbourg: Council of Europe.

Council of Europe (2005). *Demographic Yearbook*. Strasbourg: Council of Europe.

Coviello, V. and M. Bogges (2004). Cumulative incidence estimation in the presence of competing risks. *The Stata journal 4*(2), 103–112.

Daguet, F. (2002). Un siècle de fécondité francaise: caractéristiques et évolution de la fécondité de 1901 à 1999. Bulletin de INSEE résultats 8, INSEE, Paris.

de Bruijn, B. (1999). *Foundations of demographic theory. Choice, process, context.* Groningen: Nethur.

de Feijter, H. (1991). Voorlopers bij demografische veranderingen. NIDI Reports 22, NIDI, The Hague.

Desplanques, G. (2008). Avantages et incertitudes des enquêtes. *Population-F 63*(3), 477–502.

Deutsches Jugendinstitut e.V. (2008). Zahlenspiegel 2007. Kindertagesbetreuung im Spiegel der Statistik. Abteilung Zahlenspiegel, DJI, München.

Dingeldey, I. (2000). Begünstigungen und Belastungen familialer Erwerbs– und Arbeitszeitmuster in Steuer– und Sozialversicherungssystemen – Ein Vergleich zehn europäischer Länder. Graue Reihe des Instituts Arbeit und Technik, Institut Arbeit und Technik, Gelsenkirchen.

Dorbritz, J. and K. Ruckdeschel (2007). Kinderlosigkeit in Deutschland – Ein europäischer Sonderweg? Daten, Trends und Gründe. In D. Konietzka and M. Kreyenfeld (Eds.), *Ein Leben ohne Kinder. Kinderlosigkeit in Deutschland*, Wiesbaden, pp. 45–81. VS Verlag für Sozialwissenschaften.

Durkheim, E. (1984). *The division of labor in society* (First French edition published in 1893 by Félix Alcan, Paris ed.). New York: Free Press.

Duvander, A.-Z. E. (1999). The transition form cohabitation to marriage. A longitudinal study of the prospensity to marry in Sweden in the early 1990s. *Journal of Family Issues 20*(5), 698–717.

Dykstra, P. A. and L. J. van Wissen (Eds.) (1999). *Population issues: an interdisciplinary focus*, New York. Kluwer Academic/Plenum Publishers.

Ehmann, S. (1999). *Familienpolitik in Frankreich und Deutschland: ein Vergleich.* Frankfurt am Main: Lang.

Ekert-Jaffé, O. and A. Solaz (2001). Unemployment, marriage, and cohabitation in France. *Journal of Socio-Economics 30*, 75–98.

Engelbrech, G. and M. Jungkunst (2001). Wie bringt man Beruf und Kinder unter einen Hut? IAB Kurzbericht 7, IAB, Nürnberg.

Ermisch, J. (1996). The Economic Environment for Family Formation. In D. Coleman (Ed.), *Europe's Population in the 1990s*, pp. 144–162. Oxford: Oxford University Press.

Esping-Andersen, G. (1990). *The three worlds of welfare capitalism.* Cambridge: Polity Press.

Esping-Andersen, G. (1998). Die drei Welten des Wohlfahrtskapitalismus. Zur politischen Ökonomie des Wohlfahrtsstaates. In S. Lessenich and I. Ostner (Eds.), *Welten des Wohlfahrtskapitalismus: der Sozialstaat in vergleichender Perspektive*, Frankfurt/Main and New York, pp. 19–57. Campus Verlag.

Esping-Andersen, G. (1999). *Social Foundations of Postindustrial Economies*. New York: Oxford University Press.

Europäische Kommission (Ed.) (2000). *Wie verwenden Frauen und Männer ihre Zeit? Drei europäische Studien*. Luxemburg: Amt für amtliche Veröffentlichungen der Europäischen Gemeinschaften.

European Commission (2006). *The gender pay gap – Origins and policy responses. A comparative review of 30 European countries*. Luxembourg: European Commission.

Eurostat (2001). New cronos.

EUROSTAT (2002). Labour Force Survey 2002.

Eurostat (2008). EU Labor Force Survey. `http://epp.eurostat.ec.europa.eu`.

Eurostat (2009). EU Labor Force Survey. `http://epp.eurostat.ec.europa.eu`.

Fagnani, J. (2002). Why do French women have more children than German women? Family policies and attitudes towards child care outside the home. *Community, Work and Family 5*(1), 103–120.

Falkner, G., M. Hartlapp, S. Leiber, and O. Treib (2002). Transforming Social Policy in Europe? The EC's Parental Leave Directive and Misfit in the 15 Member States. MPIfG Working Paper 02/11, Max Planck Institute for the Studies of Societies, Köln.

Festy, P. (1979). La fécondité des pays occidentaux de 1870 a 1970. Travaux et Documents 85, Institut national d'études démographiques, Paris.

Gauthier, A. H. and A. Bortnik (2001). Comparative maternity, parental, and childcare database, Version 2. University of Calgary: `http://www.soci.ucalgary.ca/FYPP/`.

Gergen, T. (2007). Das französische Scheidenfolgungsrecht als Gegenmodell zum deutschen Recht? In V. Lipp, E. Schuhmann, and B. Veit (Eds.), *Reform des Unterhaltsrechts. 5.Göttinger Workshop zum Familienrecht 2006*, Göttingen, pp. 29–48. Universitätsverlag Göttingen.

Gerster, M., N. Keiding, L. B. Knudsen, and K. Strandberg-Larsen (2007). Education and seond birth rates in denmark 1981–1994. *Demographic Research 17*(8), 181–210.

Gestrich, A. (2003). Neuzeit. In A. Gestrich, J.-U. Krause, and M. Mitterauer (Eds.), *Geschichte der Familie*, Stuttgart. Kröner.

Giele, J. Z. and G. H. Elder (1985). *Methods of life course research: qualitative and quantitative approaches*. Thousand Oaks, CA: Sage.

Godard, J. (2007). PACS seven years on: is it moving towards marriage? *International Journal of Law, Policy and the Family 21*, 310–321.

Goldscheider, F. K. and L. J. Waite (1986). Sex differences in the entry into marriage. *The American Journal of Sociology 92*(1), 91–109.

Goldstein, J. R. and C. T. Kenney (2001). Marriage delayed or marriage foregone? New cohort forecasts of first marriage for U.S. women. *American Sociological Review 66*, 506–519.

Gornick, J. C. and J. A. Jacobs (1998). Gender, the Welfare State, and Public Employment: A Comparative Study of Seven Industrialized Countries. *American Sociological Review 63*, 688–710.

Gornick, J. C., M. K. Meyers, and K. E. Ross (1997). Supporting the Employment of Mothers: Policy Variation Across Fourteen Welfare States. *Journal of European Social Policy 7*(1), 45–70.

Gornick, J. C., M. K. Meyers, and K. E. Ross (1998). Public Policies and the Employment of Mothers: A Cross–National Study. *Social Science Quarterly 79*(1), 35–54.

Gottschall, K. and K. Bird (2008). Family leave policies and labor market segregation in Germany: Reinvention or reform of the male breadwinner model. *Review of Political Research 20*(1), 115–134.

Goux, D. and E. Maurin (2003). Who Marries Whom in France? In H.-P. Blossfeld and A. Timm (Eds.), *Who Marries Whom? Educational Systems as Marriage Markets in Modern Societies*, pp. 57–78. Dordrecht et al.: Kluwer.

Gustafsson, S. (1991). Neoklassische ökonomische Theorien und die Lage der Frau: Ansätze und Ergebnisse zu Arbeitsmarkt, Haushalt und der Geburt von Kindern. In K. U. Mayer, J. Allmendinger, and J. Huinink (Eds.), *Vom Regen in die Traufe: Frauen zwischen Beruf und Familie*. Frankfurt am Main: Campus Verlag.

Hajnal, J. (1965). European marriage patterns on perspective. In D. V. Glass (Ed.), *Population in History: Essays in Historical Demgraphy*, London, pp. 101–143. Arnold.

Hank, K., M. Kreyenfeld, and K. C. Spieß (2003). Kinderbetreuung und Fertilität in Deutschland. MPIDR Working Paper WP 2003–002, Max Planck Institute for Demographic Research, Rostock: `http://www.demogr.mpg.de/papers/working/wp-2003-002.pdf`.

Heuveline, P. and J. M. Timberlake (2004). The role of cohabitation in family formation: the United States in comparative perspective. *Journal of Marriage and Family 66*, 1214–1230.

Hillmert, S. (2005). From old to new structures: a long-term comparison of the transition to adulthood in West and East Germany. In R. Macmillan (Ed.), *The structure of the life course: Standardized?779 Individualized?Differentiated?*, Amsterdam et al., pp. 151–173. Elsevier Ltd.

Hoem, J. M. (1986). The impact of education on modern family–union initiation. *European Journal of Population 2*, 113–133.

Hoem, J. M. (1996). The Harmfulness or Harmlessness of Using an Anticipatory Regressor: How Dangerous Is It to Use Education Achieved as of 1990 in the Analysis of Divorce Risks in Earlier Years. *Yearbook of Population Research in Finland 33*, 34–43.

Hoem, J. M. and D. Kostova (2008). Early traces of the Second Demographic Transition in Bulgaria: A joint analysis of marital and non–marital union formation, 1960–2004. *Population Studies 62*(3), 259–271.

Hoem, J. M. and M. Kreyenfeld (2006). Anticipatory analysis and its alternatives in life–course research. Part 1: Education and first childbearing. MPIDR Working Paper WP 2006–006, Rostock.

Hoem, J. M., A. Prskawetz, and G. Neyer (2001). Autonomy or conservative adjustment? The effect of public policies and educational attainment on third births in Austria. *Population Studies 55*, 249–261.

Huinink, J. (1989). Das zweite Kind. Sind wir auf dem Weg zur Ein–Kind–Familie? *Zeitschrift für Soziologie 18*(3), 192–207.

Huinink, J. (1995). *Warum noch Familie? Zur Attraktivität von Partnerschaft und Elternschaft in unserer Gesellschaft*. Frankfurt/New York: Campus Verlag.

Huinink, J. and M. Wagner (1998). Individualisierung und die Pluralisierung von Lebensformen. In J. Friedrichs (Ed.), *Die Individualisierungsthese*, Opladen, pp. 85–106. Leske+Budrich.

Hullen, G. (2003). The capital of couples and the effects of human capital on family formation. Materialien zur Bevölkerungswissenschaft 110, Bundesinstitut für Bevölkerungsforschung, Wiesbaden.

Infratest Burke Sozialforschung (2000). Familie und Partnerbeziehungen in der Bundesrepublik Deutschland (Familiensurvey 2000): Methodenbericht. Methodenbericht, Infratest Burke Sozialforschung, München.

Inglehard, R. (1977). *The silent revolution: Changing values and political styles among western publics*. Princeton: Princeton University Press.

Inglehart, R. and W. E. Baker (2000). Modernization, cultural change, and the persistence of traditional values. *American Sociological Review 65*(1), 19–51.

INSEE (2002). La Situation Démographique en 1999. Technical report, INSEE, Paris.

INSEE (2006). Bilan démographique 2005. *INSEE Première*.

INSEE (2008a). *Femmes et hommes – regards sur la parité – édition 2008*. Paris: INSEE.

INSEE (2008b). Nombre de couples selon la situation matrimoniale et le nombre d'enfants. `http://www.insee.fr/fr/themes`.

INSEE (2009). Bilan démographique 2008. *INSEE Première* (1220).

INSEE (2009, 4). Bulletin statistique: Taux de chômage au sens du bit, france métropolitaine, femmes moins de 25 ans. `http://www.indices.insee.fr/bsweb/servlet/bsweb?action=BS_SERIE&BS_IDBANK=001505089&BS_IDARBO=02020200000000`.

Institut der deutschen Wirtschaft Köln (2010). Familienfreundlichkeit: Deutschland mittelprächtig. Informationsdienst des Instituts der deutschen Wirtschaft Köln 36, Institut der deutschen Wirtschaft Köln, Köln.

Kalmijn, M. and R. Luijkx (2005). Has the reciprocal relationship between employment and marriage changed for men? An analysis of the life histories of men born in the Netherlands between 1930 and 1970. *Population Studies 59*(2), 211–231.

Kantorová, V. (2004, March). *Family life transitions of young women in a changing society: First union formation and birth of first child in the Czech Republic, 1970-1997*. Ph. D. thesis, Charles University in Prague and Universite de Paris I-Pantheon-Sorbonne, Prague.

Kaufmann, F.-X., A. Kuijsten, H.-J. Schulze, and K. P. Strohmeier (Eds.) (1997). *Family Life and Family Policies in Europe: Volume 1. Structures and Trends in the 1980s*. Oxford: Clarendon Press.

Kennedy, S. (2004). Education and the formation of new families: a comparative study of cohabitation and nonmarital fertility in Western nations. Paper prepared for presentation at the 2004 meeting of the Population Association of America, Boston MA, April 1–3.

Kiernan, K. (2001). The Rise of Cohabitation and Childbearing Outside Marriage in Western Europe. *International Journal of Law, Policy and the Family 15*(1), 1–21.

Klein, T. (1999). Pluralisierung versus Umstrukturierung am Beispiel partnerschaftlicher Lebensformen. *Klner Zeitschrift fr Soziologie und Sozialpsychologie 51*(3), 469–490.

Klein, T. and W. Lauterbach (1994). Bildungseinflüsse auf Heirat, die Geburt des ersten Kindes und die Erwerbsunterbrechung von Frauen. *Kölner Zeitschrift für Soziologie und Sozialpsychologie 46*(2), 278–298.

Klein, T., A. Lengerer, and M. Uzelac (2002). Partnerschaftliche Lebensformen im internationalen Vergleich. *Zeitschrift für Bevölkerungswissenschaft 27*(3), 359–379.

Koenig, R. (1969). Soziologie der Familie. In R. Koenig (Ed.), *Handbuch der empirischen Sozialforschung, Bd. 2*, Stuttgart, pp. 172–305. Ferdinand Enke.

Koeppen, K., M. Mazuy, and L. Toulemon (2007). Kinderlosigkeit in frankreich. In D. Konietzka and M. Kreyenfeld (Eds.), *Ein Leben ohne Kinder. Kinderlosigkeit in Deutschland*, Wiesbaden, pp. 83–104. VS Verlag für Sozialwissenschaften.

Kohli, M. (1985). Die institutionalisierung des Lebenslaufs. *Koelner Zeitschrift für Soziologie und Sozialpsychologie 37*, 1–29.

Konietzka, D. and J. Huinink (2003). Die De-Standardisierung einer Statuspassage? Zum Wandel des Auszugs aus dem Elternhaus und des Übergangs in das Erwachsenenalter in Westdeutschland. *Soziale Welt* (54), 285–312.

Konietzka, D. and M. Kreyenfeld (2002). Women's Employment and Non–Marital Childbearing: A Comparison between East and West Germany in the 1990s. *Population: An English Edition 57*(2), 331–357.

Konietzka, D. and M. Kreyenfeld (2005). Nichteheliche Mutterschaft und soziale Ungleichheit im familialistischen Wohlfahrtsstaat. Zur sozioökonomischen Differenzierung der Familienformen in Ost– und Westdeutschland. *Kölner Zeitschrift für Soziologie and Sozialpsychologie 57*(1), 32–61.

König, R. (2002). Familiensoziologie. In R. Nave-Herz, H. v. Alemann, H. J. Hummell, O. König, and H. P. Thrun (Eds.), *Schriften: Ausgabe letzter Hand; 14*, Opladen. Leska + Budrich.

Köppen, K. (2006). Second births in western Germany and France. *Demographic Research 14*(14), 295–330.

Kostova, D. (2008, September). *Union formation in times of social and economic change: Evidence from the Bulgarian and Russian GGS*. Ph. D. thesis, University of Rostock, Rostock.

Koytcheva, E. (2006). *Social–demographic differences of fertility and union formation in Bulgaria before and after the start of the societal transition*. Ph. D. thesis, Universität Rostock, Rostock.

Kraus, A. (1979). Antizipierter Ehesegen im 19. Jahrhundert. *Vierteljahreszeitschrift für Sozial– und Wirtschaftsgeschichte 66*(2), 174–215.

Kravdal, O. (1999). Does marriage require a stronger economic underpinning than informal cohabitation? *Population Studies 53*(1), 63–80.

Kravdal, O. (2004). An illustration of the problems caused by incomplete education histories in fertility analyses. *Demographic Research Special Collection Edition 3*(6), 135–154.

Kreyenfeld, M. (2001). *Employment and Fertility – East Germany in the 1990s*. Ph. D. thesis, University of Rostock, Rostock.

Kreyenfeld, M. (2002a). Parity Specific Birth Rates for West Germany: An Attempt to Combine Survey Data and Vital Statistics. *Zeitschrift für Bevölkerungswissenschaft 27*(3), 327–357.

Kreyenfeld, M. (2002b). Time–squeeze, partner effect or self–selection? An investigation into the positive effect of women's education on second birth risks in West Germany. *Demographic Research 7*(2).

Kreyenfeld, M. (2004). Fertility Desicions in the FRG and GDR. An Analysis with Data from the German Fertility and Family Survey. *Demographic Research Special Collection 3*(11), 275–318.

Kreyenfeld, M. and E. Geisler (2006). Müttererwerbstätigkeit in Ost– und Westdeutschland. *Zeitschrift für Familienforschung 18*(3), 333–360.

Kreyenfeld, M. and K. Hank (2000). Does the availability of child care influence the employment of mothers? Findings from western Germany. *Population Research and Policy Review 19*, 317–337.

Kreyenfeld, M., A. Hornung, K. Kubisch, and I. Jaschinski (2010). Fertility and union histories from German GGS data: Some critical reflections. MPIDR Working Paper 023, Max Planck Institute for Demographic Research, Rostock.

Kreyenfeld, M. and J. Huinink (2003). Der Übergang zum ersten und zweiten Kind – Ein Vergleich zwischen Familiensurvey und Mikrozensus. In W. Bien and J. H. Marbach (Eds.), *Partnerschaft und Familiengründung – Ergebnisse der dritten Welle des Familien–Survey*, Opladen, pp. 43–64. Leske+Budrich.

Kreyenfeld, M. and D. Konietzka (2005). Nichteheliche Lebensgemeinschaften – Demographische Trends und gesellschaftliche Herausforderungen. In J. Scherpe and N. Yassari (Eds.), *Rechtsstellung nichtehelicher Lebensgemeinschaften*, Tübingen. Mohr Siebeck.

Kreyenfeld, M. and D. Konietzka (2008). Education and fertility in Germany. In I. Hamm, H. Seitz, and M. Werding (Eds.), *Demographic change in Germany: the economic and fiscal consequences*, Berlin et al., pp. 165–187. Springer.

Kreyenfeld, M., K. C. Spieß, and G. G. Wagner (2002). Kinderbetreuungspolitik in Deutschland. Möglichkeiten nachfrageorientierter Steuerungs– und Finanzierungsinstrumente. *Zeitschrift für Erziehungswissenschaft 5*(2), 201–221.

Kreyenfeld, M. and C. Zabel (2005). Female Education and the Second Child: Great Britain and Western Germany compared. *Zeitschrift für Wirtschafts- und Sozialwissenschaften/Schmollers Jahrbuch 125*, 145–156.

Kuijsten, A. C. (1996). Changing family patterns in Europe: A case of divergence? *European Journal of population 12*(2), 115–143.

Kurz, K., N. Steinhage, and K. Golsch (2001). Case study Germany: Global competition, uncertainty and the transition to adulthood. Globalife Working Paper 16, University of Bielefeld, Bielefeld.

Langan, M. and I. Ostner (1991). Geschlechtspolitik im Wohlfahrtsstaat: Aspekte im internationalen Vergleich. *Kritische Justiz*, 302–317.

Lauer, C. (2002). Family Background, Cohort and Education. A French–German Comparison. Discussion Paper 02–12, Centre for European Economic Research, Mannheim.

Lauer, C. and A. M. Weber (2003). Employment of Mothers After Childbirth: A French–German Comparison. Discussion Paper 03–50, Centre for European Economic Research, Mannheim.

Lauterbach, W. (1999). Die Dauer Nichtehelicher Lebensgemeinschaften. Alternative oder Vorphase zur Ehe? In T. Klein and W. Lauterbach (Eds.), *Nichteheliche Lebensgemeinschaften. Analysen zum Wandel partnerschaftlicher Lebensformen*, Opladen, pp. 269–307. Leske+Budrich.

Le Goff, J.-M. (2002). Cohabiting unions in France and West Germany: Transitions to first birth and first marriage. *Demographic Research 7*(18), 593–623.

Lehrer, E. L. (2000). Religion as a Determinant of Entry into Cohabitation and Marriage. In L. J. Waite, C. Bachrach, M. Hindin, E. Thomson, and A. Thornton (Eds.), *The Ties That Bind. Perspectives on Marriage and Cohabitation*, New York, pp. 227–252. Aldine de Gruyter.

Leridon, H. (1990). Extra–marital cohabitation and fertility. *Population Studies 44*, 469–487.

Leridon, H. and L. Toulemon (1995). France. In H.-P. Blossfeld (Ed.), *The New Role of Women. Family Formation in Modern Societies*. Bolder, Colorado: Westview Press.

Leridon, H. and C. Villeneuve-Gokalp (1988). The new couples. Number characteristics and attitudes. *Population: An English Selection 44*(1), 203–235.

Lessenich, S. and I. Ostner (1995). Die institutionelle Dynamik 'dritter Wege' – Zur Entwicklung der Familienpolitik in 'katholischen' Wohlfahrtsstaaten am Beispiel Deutschlands und Frankreichs. *Zeitschrift für Sozialreform 47*, 780–803.

Lessenich, S. and I. Ostner (1998). *Welten des Wohlfahrtskapitalismus. Der Sozialstaat in vergleichender Perspektive*. Frankfurt and New York: Campus Verlag.

Lesthaeghe, R. (1992). Der zweite demographische Übergang in den westlichen Ländern: Eine Deutung. *Zeitschrift für Bevölkerungswissenschaft 18*(3), 313–354.

Lesthaeghe, R. and K. Neels (2002). From the First to the Second Demographic Transition: An Interpretation of the Spatial Continuity of Demographic Innovation in France, Belgium and Switzerland. *European Journal of Population 18*, 325–360.

Lesthaeghe, R. and J. Surkyn (1998). Cultural dynamics and economic theories of fertility change. *Population and Development Review 14*(1), 1–45.

Lesthaeghe, R. and D. van de Kaa (1986). Twee demografische transities? In R. Lesthaeghe and D. van de Kaa (Eds.), *Bevolking – groei en krimp*, Deventer, pp. 9–24. Van Loghum Slaterus.

Letablier, M.-T. (2002). Kinderbetreuungspolitik in Frankreich und ihre Rechtfertigung. *WSI Mitteilungen 3*, 169–175.

Lewis, J. (Ed.) (1994). *Women and Social Policies in Europe. Work, Family and the State*. Aldershot: Edward Elgar.

Lichter, D. T., D. K. McLaughlin, G. Kephart, and D. J. Landry (1992). Race and retreat from marriage: a shortage of marriageable men? *American Sociological Review 57*(6), 781–799.

Liefbroer, A. C. and M. Corijn (1999). Who, what, where, and when? Specifying the impact of educational attainment and labour force participation on family formation. *European Journal of Population 15*, 45–75.

Lillard, L. and C. Panis (2003). *aML Multilevel Multiprocess Statistical Software, Version 2.0, User's Guide*. Los Angeles, California: Econware.

Lillard, L. A. (1993). Simultaneous equations for hazards. Marriage duration and fertility timing. *Journal of Econometrics 56*, 189–217.

Linton, R. (1936). *The study of man. An introduction*. New York: Appleton-Century-Crofts.

Lois, D. (2008). Arbeitsteilung, Berufsorientierung und Partnerschaftsstabilität – Ehen und nichteheliche Lebensgemeinschaften im Vergleich. *Kölner Zeitschrift für Soziologie und Sozialpsychologie 60*(1), 53–77.

Lundberg, S. and R. A. Pollak (1996). Bargaining and distribution in marriage. *Journal of Economic Perspectives 10*(4), 139–158.

Lunn, M. and D. McNeil (1995). Applying cox regression to competing risks. *Biometrics 51*(2), 524–532.

Luxán, M., P. Miret, and R. Trevino (1999). Is the male-provider model still in place? Partnership formation in contemporary Spain. *South European Society and Politics 4*(2), 171–194.

Maier, F. (1997). Entwicklung der Frauenerwerbstätigkeit in der Europäischen Union. *Aus Politik und Zeitgeschichte 52*, 15–27.

Manser, M. and M. Brown (1980). Marriage and Household Decision–Making: A Bargaining Analysis. *International Economic Review 21*(1), 31–44.

Manting, D. (1996). The changing meaning of cohabitation and marriage. *European Sociological Review 12*(1), 53–65.

Mare, R. D. (1991). Five decades of educational assortative mating. *American Sociological Review 56*, 15–32.

Martin, C. (2004). *Families in France: Policies, challenges and opportunities*. General Monitoring Report 2004. European Observatory on Family Matters.

Martin, C. and I. Théry (2001). The PACS and Marriage and Cohabitation in France. *International Journal of Law, Policy and the Family 15*(1), 135–168.

Mason, K. O. (2001). Gender and family systems in the fertility transition. *Population and Development Review 27*, 160–176.

Matthias-Bleck, H. (2006). *Jenseits der Institution? Lebensformen auf dem Weg in die Normalität*. Würzburg: Ergon Verlag.

Mayer, K. U. (2001). The paradox of global social change. In A. Woodward and M. Kohli (Eds.), *Inclusions and exclusions in European societies*, London and New York, pp. 89–110. Routledge.

Mayer, K.-U. and U. Schoepflin (1989). The state and the life course. *Annual Review of Sociology 15*, 187–209.

Mazuy, M. and L. Toulemon (2001). Étude de l'histoire familiale: Premier resultats de l'enquete en menages. Technical report, INED, Paris.

Meron, M. and I. Widmer (2002). Unemployment Leads Women to Postpone the Birth of Their First Child. *Population: An English Edition 57*(2), 301–330.

Meyers, M. K., J. C. Gornick, and K. E. Ross (1999). Public Childcare, Parental Leave, and Employment. In D. Sainsbury (Ed.), *Gender and Welfare State Regimes*, pp. 117–146. Oxford: Oxford University Press.

Micheli, G. (2004). On the verge of familistic interpretation. Familism, moods and other alchemis. In G. Dalla Zuanna and G. Micheli (Eds.), *Strong family and low fertility: a paradox?*, pp. 127–160. Dordrecht: Kluwer Academic Publishers.

Micheli, G. A. (2000). Kinship, family and social network. The anthropological embedment of fertility change in Southern Europe. *Demographic Research 3*(13).

Mincer, J. (1962). Labor force participation of married women. In H. G. Lewis (Ed.), *Aspects of Labor Economics*, Princeton. Princeton University Press.

MISSOC (2005, 06.05.). `http://europe.eu.int/comm/employment_social/missoc/2004/012004/fr_de.pdf`.

Morgan, K. (2002). Does Anyone Have a 'Libre Choix'? Subversive Liberalism and the Politics of French Child Care Policy. In S. Michel and R. Mahon (Eds.), *Child care policy at the crossroads: gender and welfare state restructuring*, pp. 143–167. New York and London: Routledge.

Morgan, K. (2003). The Politics of Mothers' Employment. France in Comparative Perspective. *World politics 55*, 259–289.

Mortimer, J. T., S. Oesterle, and H. Krüger (2005). Age norms, institutional structures, and the timing of markers of transition to adulthood. In R. Macmillan (Ed.), *The structure of the life course: Standardized?779 Individualized?Differentiated?*, Amsterdam et al., pp. 175–203. Elsevier Ltd.

Mueller, W. and Y. Shavit (1998). The institutional embeddedness of the stratification process: a comparative study of qualifications and occupations in thirteen countries. In J. Shavit and W. Mueller (Eds.), *From school to work. A comparative study of educational qualifications and occupational destinations*, Oxford, pp. 1–48. Clarendon Press.

Müller, R. (2003). Heiratsalter und Ehehindernisse in Stuttgart–Feuerbach im 19. und frühen 20. jahrhundert. *Historical Social Research 28*(3), 92–109.

Müller, R., T. Sommer, and A. Timm (1999). Nichteheliche Lebensgemeinschaft oder Ehe? Einflüsse auf die Wahl der Partnerschaftsform beim ersten Zusammenzug im Lebenslauf. Working Paper 53, University of Bremen, Bremen.

Müller, W. (2005). Education and youth integration into European labour markets. *International Journal of Comparative Sociology 46*(5–6), 461–485.

Münch, F. (2000). Entwicklungstendenzen im in- und ausländischem Familienrecht - zu einem Jahresbericht. *Deutsches und Europäisches FamilienRecht 2*, 144–161.

Munoz-Perez, F. and F. Prioux (2000). Children born outside marriage in France and their parents: Recognitions and Legitimations since 1965. *Population: An English Selection 12*, 139–196.

Nave-Herz, R. (1997). Pluralisierung familialer Lebensformen – ein Konstrukt der Wissenschaft? In L. A. Vaskovics (Ed.), *Familienleitbilder und Familienrealitäten*, Opladen, pp. 36..49. Leske+Budrich.

Nave-Herz, R. (2000). Historischer und zeitgeschichtlicher Wandel im Phasenablaufprozess von der Partnerfindung bis zur Eheschließung. *Zeitschrift für Soziologie der Erziehung und Sozialisation 20*(3), 260–271.

Nave-Herz, R. (2004). *Ehe- und Familiensozilogie: eine Einführung in Geschichte, theoretische Ansätze und empirische Befunde*. Weinheim, München: Juventa.

Nazio, T. and H.-P. Blossfeld (2003). The Diffusion of Cohabitation among Young Women in West Germany, East Germany and Italy. *European Journal of Population* (19), 47–82.

Neyer, G. (2005). Family policies in Western Europe: Fertility policies at the intersection of gender, employment and care policies. *Österreichische Zeitschrift für Politikwissenschaft 34*(1), 91–102.

Oberhuemer, P. and M. Ulich (1997). *Kinderbetreuung in Europa. Tageseinrichtungen und pädagogisches Personal*. Weinheim and Basel: Beltz Verlag.

OECD (2001). Labour market statistics. CD–Rom on Labour Market Statistics.

OECD (2004). OECD Labour Market Statistics: Indicators. `www.oecd.org`.

OECD (2006). Aging and employment policies: France. In OECD (Ed.), *Live longer, work longer*, Paris. OECD Publishing.

Onnen-Isemann, C. (2003). Familienpolitik und Fertilitätsunterschiede in Europa. Frankreich und Deutschland. *Aus Politik und Zeitgeschichte 44*, 31–38.

Ono, H. (2003). Women's economic standing, marriage timing, and cross-national contexts of gender. *Journal of Marriage and Family 65*, 275–286.

Oppenheimer, V. K. (1988). A Theory of Marriage Timing. *American Journal of Sociology 94*(3), 563–591.

Oppenheimer, V. K. (1994). Women's rising employment and the future of the family in industrial societies. *Population and Development Review 20*(2), 293–342.

Oppenheimer, V. K. (1997). Women's Employment and the Gain to Marriage: The Specialization and Trading Model. *Annual Review of Sociology 23*, 431–453.

Oppenheimer, V. K. (2000). The continuing importance of men's economic position in marriage formation. In L. J. Waite, C. Bachrach, M. Hindin, E. Thomson, and A. Thornton (Eds.), *The Ties That Bind. Perspectives on Marriage and Cohabitation*, New York, pp. 283–301. Aldine de Gruyter.

Oppenheimer, V. K. (2003). Cohabiting and marriage during young men's career-development process. *Demography 40*(1), 127–149.

Oppenheimer, V. K., M. Kalmijn, and N. Lim (1997). Men's career development and marriage timing during a period of rising inequality. *Demography 34*(3), 311–330.

Oppenheimer, V. K. and V. Lew (1995). American marriage formation in the 1980s: how important was women's economic independence? In K. Oppenheim Mason and A.-M. Jensen (Eds.), *Gender and family change in industrialized countries*, Oxford, pp. 105–138. Clarendon Press.

Orloff, A. (1993). Gender and the social rights of citizenship: The comparative analysis of gender relations and welfare states. *American Sociological Review 58*, 303–328.

Ostner, I. (1995). Arm ohne Ehemann? Sozialpolitische Regulierung von Lebenschancen für Frauen im internationalen Vergleich. *Aus Politik und Zeitgeschichte 36–37*, 3–12.

Ostner, I. (2001). Cohabitation in Germany – Rules, Reality and Public Discourses. *International Journal of Law, Policy and the Family 15*(1), 88–101.

Parsons, T. (1959). The Social Structure of the Family. In R. Anshen (Ed.), *The Family: Its Function and Destiny*, New York, pp. 241–274. Harper.

Perelli-Harris, B., W. Sigle-Rushton, T. Lappegard, A. Jasilioniene, P. Di Giulio, R. Keizer, K. Köppen, C. Berghammer, and M. Kreyenfeld (2009). Examining nonmarital childbearing across Europe: how does union context differ across countries? MPIDR Working Paper WP 2009–021, Max Planck Institut for Demographic Research, Rostock.

Perelli-Harris, B., W. Sigle-Rushton, T. Lappegard, A. Jasilioniene, P. Di Giulio, R. Keizer, K. Köppen, and D. Kostova (2009). Does childbearing change the meaning of cohabitation? Examining nonmarital childbearing across Europe. Paper presented at the Population Association of America meeting, Detroit, April 30-May 2.

Peuckert, R. (2004). *Familienformen im sozialen Wandel*. Wiesbaden: VS Verlag für Sozialwissenschaftler.

Pla, A. and C. Beaumel (2010). Bilan démographique 2009. Deux pacs pour trois mariages. *INSEE Premiere* (1276).

Prioux, F. (2003a). Age at First Union in France: A Two-Stage Process of Change. *Population: An English Edition 58*(4-5), 559–577.

Prioux, F. (2003b). Recent Demographic Developments in France. *Population: An English Edition 58*(4–5), 525–558.

Prioux, F. (2008). Lévolution démographique récente en france : lespérance de vie progresse toujours. *Population: French Edition 63*(3), 437–476.

Prioux, F. and M. Mazuy (2009). Lévolution démographique récente en france : dix ans pour le pacs, plus dun million de contractants. *Population: French Edition 64*(3), 445–494.

Reher, D. S. (1998). Family ties in Western Europe: persistent contrasts. *Population and Development Review 24*(2), 203–234.

Reuter, S. (2002a). Frankreichs Wohlfahrtsstaatsregime im Wandel? Erwerbsintegration von Französinnen und familienpolitische Reformen der 90er Jahre. ZeS–Arbeitspapier 12, Zentrum für Sozialpolitik, Bremen.

Reuter, S. (2002b). Sonderfall Frankreich: Die zentrale Rolle der Familienpolitik im französischen Wohlfahrtsstaat und ihre Bedeutung für die Erwerbsintegration von Frauen. Vortrag in der Ad–hoc–Gruppe "Europäische Wohlfahrtsstaaten zwischen Lohnarbeit und Familie" auf dem 31. Kongress der Deutschen Gesellschaft für Soziologie "Entstaatlichung und soziale Sicherheit" in Leipzig, 7.–11.10.2002.

Revillard, A. (2006). Work/family policy in France: from state familialism to state feminism? *International Journal of Law, Policy and the Family 20*, 133–150.

Robert-Bobée, I. and M. Mazuy (2003). Calendriers de constitution des familles et âge de fin des études. Série des Documents de Travail F0308, INSEE.

Rosenbaum, H. (1996). *Formen der Familie. Untersuchungen zum Zusammenhang von Familienverhältnissen, Sozialstruktur und sozialem Wandel in der deutschen Gesellschaft des 19.Jahrhunderts*. Frankfurt am Main: Suhrkamp.

Rosenfeld, R. A., H. Trappe, and J. C. Gornick (2004). Gender and work in Germany: before and after reunification. *Annual Review of Sociology 30*, 103–124.

Rosina, A. and R. Fraboni (2004). Is marriage loosing its centrality in Italy? *Demographic Research 8*.

Sainsbury, D. (1994). *Gendering Welfare States*. London: Sage.

Sainsbury, D. (1999). Gender, Policy Regimes, and Politics. In D. Sainsbury (Ed.), *Gender and Welfare State Regimes*, pp. 245–275. Oxford: Oxford University Press.

Salles, A. (2006, Januar). Frankreich auf dem Weg zur Reprivatisierung der Kinderbetreuung? `http://web.fu-berlin.de/gpo/pdf/tagungen/frankreich_anne_salles.pdf`.

Scherer, S. and I. Kogan (2004). Erwerbseintritt in Europa. *Bildung und Erziehung 57*(2), 133–154.

Schneider, N. F. (2001). Pluralisierung der Lebensformen – Fakt oder Fiktion? *Zeitschrift für Familienforschung 13*(2), 85–90.

Schreiber, C. (2001). Erfahrungen mit Lebenspartnerschaften am Beispiel Frankreichs. *Familie, Partnerschaft, Recht 7*(7), 442–443.

Schröder, C. (2008). The influence of parents on cohabitation in Italy: Insights from two regional contexts. *Demographic Research 19*(48), 1693–1726.

Schultheis, F. (1999). *Familien und Politik. Formen wohlfahrtsstaatlicher Regulierung von Familie im deutsch–französischen Gesellschaftsvergleich*. Konstanz: Universitätsverlag Konstanz GmbH.

Sell, S. (2002). Bedarfsorientierte Modernisierung der Kinderbetreuungsinfrastruktur in Deutschland. *WSI Mitteilungen 3*, 147–153.

Smock, P. J. and W. D. Manning (1997). Cohabiting partners economic circumstamces and marriage. *Demography 34*(3), 331–341.

Sobotka, T. (2004, November). *Postponement of childbearing and low fertility in Europe*. Ph. D. thesis, Rijksuniversiteit Groningen, Groningen.

Sobotka, T. (2008). Overview Chapter 6: The diverse faces of the Second Demographic Transition in Europe. *Demographic Research 19*(8), 171–224.

Sobotka, T. and L. Toulemon (2008). Overview Chapter 4: Changing family and partnership behaviour: Common trends and persistent diversity across Europe. *Demographic Research 19*(6), 85–138.

Sommer, T., E. Klijzing, and M. Mills (2000). Partnership formation in a globalizing world: the impact of uncertainty in East and West germany. Globalife Working Paper 9, University of Bielefeld, Bielefeld.

Spieß, K. (2004, March). *Parafiskalische Modelle zur Finanzierung familienpolitischer Leistungen*. Berlin: DIW Berlin.

Statistisches Bundesamt (2004). Kindertagsbetreuung regional 2002. Krippen-, Kindergarten- und Hortplätze im Kreisvergleich. Technical report, Statistisches Bundeamt, Bonn.

Statistisches Bundesamt (2006). *Statistische Wochenberichte. Bevölkerung, Soziales und Arbeit – Monatszahlen*. Wiesbaden.

Statistisches Bundesamt (2007). Statistisches Jahrbuch 2007. Technical report, Statistisches Bundesamt, Wiesbaden.

Statistisches Bundesamt (2008a, April). Angaben aus der Schul– und Hochschulenstatistik. Zahlen erhalten nach persönlicher Anfrage an das Statistische Bundesamt.

Statistisches Bundesamt (2008b). Statistik zum Elterngeld. Elterngeld regional: Vergleich aller 439 Kreise in Deutschland. Technical report, Statistisches Bundesamt, Wiesbaden.

Statistisches Bundesamt (2010, August). Statistische Wochenberichte. Bevölkerung, Soziales und Arbeit – Monatszahlen. Technical report, Statistisches Bundesamt.

Statistisches Reichsamt (1923). Statistisches Jahrbuch für das Deutsche Reich. Technical report, Statistisches Reichsamt, Berlin.

Statistisches Reichsamt (1942). Statistisches Jahrbuch für das Deutsche Reich. Technical report, Statistisches Reichsamt, Berlin.

Strohmeier, K. P. (1993). Pluralisierung und Polarisierung der Lebensformen in Deutschland. *Aus Politik und Zeitgeschichte 43*(17), 11–22.

Sweeney, M. M. (2002). Two decades of family change: the shifting economic foundations of marriage. *American Sociological Review 67*(1), 132–147.

Teachman, J. (2003). Childhood living arrangements and the formation of coresidential unions. *Journal of Marriage and Family 65*, 507–524.

Thornton, A., W. G. Axinn, and D. H. Hill (1992). Reciprocal Effects of Religiosity, Cohabitation, and Marriage. *American Journal of Sociology 98*(3), 628–651.

Thornton, A., W. G. Axinn, and J. D. Teachman (1995). The Influence of School Enrollment and Accumulation on Cohabitation and Marriage in Early Adulthood. *American Sociological Review 60*, 762–774.

Timm, A. (2004). *Partnerwahl- und Heiratsmuster in modernen Gesellschaften. Der Einfluss des Bildungssystems.* Wiesbaden: Deutscher Universitäts-Verlag.

Timm, A. (2006). Die Veränderung des Heirats– und Fertilitätsverhaltens im Zuge der Bildungsexpansion. Eine Längsschnittsanalyse für West– und Ostdeutschland. In A. Hadjar and R. Becker (Eds.), *Die Bildungsexpansion. Erwartete und unerwartete Folgen*, pp. 277–309. Wiesbaden: VS Verlag für Sozialwissenschaften.

Toulemon, L. (1995). The place of children in the history of couples. *Population: An English Selection 7*, 163–186.

Toulemon, L. (1997). Cohabitation is here to stay. *Population: An English Selection 9*, 11–46.

Toulemon, L. (2001). How many children and how many siblings in France in the last century? *Population & Sociétés* (374), 1–4.

Toulemon, L. (2002). Note méthodologique: échantillonnage, redressement, pondération. Étude de l'histoire familiale – documentation des fichiers, INSEE, Paris.

Toulemon, L. and C. de Guibert-Lantoine (1998). *Fertility and Family Surveys in Countries of the ECE Region. Standard Country Report France.* New York: United Nations.

Toulemon, L. and E. Lapierre-Adamcyk (2000). Demographic Patterns of Motherhood and Fatherhood in France. In C. Bledsoe, S. Lerner, and J. I. Guyer (Eds.), *Fertility and the Male Life–Cycle in the Era of Fertility Decline*, pp. 293–330. Oxford: Oxford University Press.

Toulemon, L., A. Pailhé, and C. Rossier (2008). France: High and stable fertility. *Demographic Research 19*(16), 503–556.

United Nations (2003). World Contraceptive Use 2003. `http://www.un.org/esa/population/publications/contraceptive2003/wcu2003.htm`.

van de Kaa, D. (1987). Europe's second demographic transition. *Population Bulletin 42*(1), 1–57.

Vaskovics, L. A. and M. Rupp (1995). *Partnerschaftskarrieren. Entwicklungspfade nichtehelicher Lebensgemeinschaften.* Opladen: Westdeutscher Verlag.

Veil, M. (1997). Zwischen Wunsch und Wirklichkeit: Frauen im Sozialstaat. Ein Ländervergleich zwischen Frankreich, Schweden und Deutschland. *Aus Politik und Zeitgeschichte 52*, 29–38.

Veil, M. (2003). Kinderbetreuungskulturen in Europa: Schweden, Frankreich, Deutschland. *Aus Politik und Zeitgeschichte 44*, 12–22.

Veil, M. (2005). Geschlechterbeziehungen im deutsch-französischen Vergleich – ein Blick auf Familien- und Arbeitsmarktpolitik. *WZB discussion paper*, 89–100.

Villeneuve-Gokalp, C. (1991). From Marriage to Informal Union: Recent Changes in the Behaviour of French Couples. *Population: An English Selection 3*, 81–111.

Wagner, M. and G. Franzmann (2000). Die Pluralisierung der Lebensformen. *Zeitschrift für Bevölkerungswissenschaft 25*(1), 151–173.

Wagner, M. and C. H. Mulder (2000). Wohneigentum im Lebenslauf. Kohortendynamik, Familiengründung und sozioökonomische Ressourcen. *Zeitschrift für Soziologie 29*(1), 44–59.

Weakliem, D. L. (2002). The effects of education on political opinions: An international study. *International Journal of Public Opinion Research 13*(2), 141–157.

Wirth, H. (2007). Kinderlosigkeit von hoch qualifizierten Frauen und Männern im Paarkontext. In D. Konietzka and M. Kreyenfeld (Eds.), *Ein Leben ohne Kinder. Kinderlosigkeit in Deutschland*, Wiesbaden, pp. 167–199. VS Verlag für Sozialwissenschaften.

Wu, Z. (2000). *Cohabitation: an alternative form of family living.* Oxford: Oxford University Press.

Xie, Y., J. M. Raymo, K. Goyette, and A. Thornton (2003). Economic potential and entry into marriage and cohabitation. *Demography 40*(2), 351–367.

Zabel, C. (2007). Do imputed educational histories provide satisfactory results in fertility analysis in the west German context? MPIDR Working Paper WP 2007-022, Rostock.

Zapf, W. (1987). *Individualisierung und Sicherheit: Untersuchungen zur Lebensqualität in der Bundesrepublik Deutschland*. München: Beck.

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Ich erkläre hiermit, dass ich die vorliegende Arbeit ohne unzulässige Hilfe Dritter und ohne Benutzung anderer als der angegebenen Hilfsmittel angefertigt habe; die aus fremden Quellen direkt oder indirekt übernommenen Gedanken sind als solche kenntlich gemacht.

Die Arbeit wurde bisher weder im Inland noch im Ausland in gleicher oder ähnlicher Form einer Prüfungsbehörde zur Erlangung eines akademischen Grades vorgelegt.

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